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MARINE PROTECTED AREAS GOVERNANCE PROGRAM FINAL REPORT

FEBRUARY 2012 – FEBRUARY 2015

SUBMITTED: APRIL 8, 2015



April 2015

This document was produced for the United States Agency for International Development. It was prepared by the Marine Protected Area Governance Program (MPAG) under Cooperative Agreement #AID-497-LA-12-00001.

Cover Photo: Community Marine Planning: West Kei Kecil

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Marine Protected Areas Governance Program

FINAL REPORT

February 2012 – February 2015

Project Number: AID-497-LA-12-00001
Reference: Sustainable Conservation Approaches in Priority Ecosystems (SCAPES) Program, Leader with Associates Cooperative Agreement No. EEF-A-00-09-00006-00
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Acronyms and Abbreviations

BAPPEDA	<i>Badan Perencanaan Pembangunan Daerah</i> - Local Development Planning Agency
BAPPENAS	<i>Badan Perencanaan Pembangunan Nasional</i> - National Development Planning Agency
BHS	Bird's Head Seascape
BIG	Geospatial Information Agency
BKKPN	<i>Balai Kawasan Konservasi Perairan Nasional</i> - Agency for National Marine Protected Areas
BLUD	<i>Badan Layanan Umum Daerah</i> - Local Government Public Service Agency
BPSDM	<i>Badan Pengembangan Sumber Daya Manusia</i> - Training Center, Agency for Human Resources Development - MMAF
BPSPL	<i>Balai Pengelolaan Sumber Daya Pesisir dan Laut-MMAF</i> - Center for the Management of Coastal and Marine Resources-MMAF
Bupati	Regent
CI	Conservation International
CSR	Corporate Social Responsibility
CTC	Coral Triangle Center
CTI-CFF	The Coral Triangle Initiative on Coral Reefs, Fisheries, and Food Security
CTSP-I	Coral Triangle Support Partnership
DJPT	<i>Direktorat Jenderal Perikanan Tangkap</i> – Directorate General of Capture Fisheries
DKP	<i>Dinas Kelautan dan Perikanan</i> - Marine and Fisheries Agency
DSS	Decision Support System
EAFM	Ecosystem Approach to Fisheries Management
E-KKP3K	<i>Panduan Evaluasi Efektivitas Pengelolaan Kawasan Konservasi Perairan, Pesisir dan Pulau-pulau Kecil</i> – MPA Management Effectiveness Indicators, also referred to as E-MPA
FMA	Fisheries Management Area
GIS	Geographic Information System
GOI	Government of Indonesia
Ha	Hectares
IMACS	Indonesia Marine and Climate Support project
KKJI	<i>Direktorat Konservasi Kawasan dan Jenis Ikan</i> - Directorate of Conservation of Areas and Fish Species, MMAF
KKLD	Local Marine Conservation Area
KKPD	<i>Kawasan Konservasi Perairan Daerah</i> - Local/Regional Marine Protected Area
KKPN	<i>Kawasan Konservasi Perairan Nasional</i> - National Marine Protected Area
KP3K	<i>Kelautan Pesisir dan Pulau-pulau Kecil</i> - Directorate General of Marine and Coastal Areas, and Small Islands, MMAF
KPI	Key Performance Indicator
LHCC	Live Hard Coral Cover
LIPI	Lembaga Ilmu Pengetahuan Indonesia - Indonesian Institute of Sciences
LKKPN	<i>Loka Kawasan Konservasi Perairan Nasional</i> – National Marine Protected Area Agency
LLMA	Locally-Managed Marine Area
LOKA KKP3K	<i>Loka Kawasan Konservasi Perairan Nasional</i> - Agency for National Marine Protected Areas
LSP	<i>Lembaga Sertifikasi Profesi</i> - Professional Certification Institute
MMAF	Ministry of Marine Affairs and Fisheries
MNP	Marine National Park
MOU	Memorandum of Understanding
MPA	Marine Protected Area
MPAG	USAID Marine Protected Area Governance Program
MRAP	Marine Rapid Assessment Program
MRP	USAID Marine Resources Program
MRP	Marine Recreational Park
NGO	Non-governmental Organization

NOAA	US National Oceanic and Atmospheric Administration
NTB	<i>Nusa Tenggara Barat</i> - West Nusa Tenggara
NTT	<i>Nusa Tenggara Timur</i> - East Nusa Tenggara
PERMEN-KP	<i>Peraturan Menteri Kelautan dan Perikanan</i> – Ministry of Marine Affairs and Fisheries Regulation
PKSPL-IPB	<i>Pusat Kajian Sumberdaya Pesisir dan Lautan</i> - Institut Pertanian Bogor – Center for Coastal and Marine Resources Studies – Bogor Agricultural University
PMP	Performance Management Plan
PPKM	Marine Training Center
PUSLAT	<i>Pusat Pelatihan Kelautan dan Perikanan</i> - Marine and Fisheries Training Agency
Puskip UNMUL	<i>Pusat Kajian dan Inovasi Perikanan dan Sumberdaya Pesisir Universitas Mulawarman</i> – Center for Fisheries and Coastal Resources Studies and Innovation of Mulawarman University
Puslitbang KP3K	Center for Research and Development for Marine and Coastal Areas and Small Islands - Hasanuddin University, Makassar
RIPPARDA	<i>Rencana Induk Pengembangan Pariwisata Daerah</i> – District Tourism Development Plan
RPO	Regional Program Office (CTSP)
RUM	Resources Use Monitoring
RZWP3K	<i>Rencana Zonasi Wilayah Pesisir dan Pulau-pulau Kecil</i> - Marine Spatial Plan for Coastal Areas and Small Islands
SATKER	<i>Satuan Kerja</i> – Working Unit
SDI	<i>Direktorat Sumberdaya Ikan</i> - Directorate of Fisheries Resources
SK3	<i>Standar Kompetensi Kerja Khusus</i> - Specific Competence Standards
SOP	Standard Operating Procedures
TNC	The Nature Conservancy
ToT	Training of Trainers
TUK	Competency Test Centers
TWP	<i>Taman Wisata Perairan</i> – Marine Recreational Park
UNIPA	University of Papua
UPT/UPTD	<i>Unit Pelaksana Teknis - Daerah</i> – District Technical Management Unit
USAID	United States Agency for International Development
WCS	Wildlife Conservation Society
WWF-US	World Wildlife Fund (within US)
WWF-Indonesia	Worldwide Fund for Nature - Indonesia

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Executive Summary

Indonesia's marine biodiversity has received worldwide recognition. To support the Indonesian Government's efforts to establish Marine Protected Areas (MPAs), from 2012-2014, USAID Indonesia initiated the three year Marine Protected Areas Governance (MPAG) program, an NGO consortium led by the World Wildlife Fund in the US (WWF-US), consisting of Conservation International (CI), the Coral Triangle Center (CTC), The Nature Conservancy (TNC), the Wildlife Conservation Society (WCS), and World Wide Fund for Nature Indonesia (WWF-Indonesia). The goal of MPAG was to support the Indonesian Government's efforts to protect important marine biodiversity and habitat through the establishment of up to 20 million hectares (ha) of effectively managed MPAs by 2020. MPAG's work was carried out at the national level through the formation of a national MPA system. At the site level, in collaboration with local governments, MPAG supported the designation of new MPAs spanning 1.7 million ha and the improved management 7.5 million ha of MPAs. This technical support was in line with, and exceeds, the Key Performance Indicators (KPIs) set by the Indonesia Ministry of Marine Affairs (MMAF) Directorate of KKJI (Conservation of Areas and Fish Species) for the period 2009-2014.

At the national level, MPAG provided technical assistance for MPA establishment by supporting regulations and policies, primarily through the development of MPA Management Effectiveness Indicators, also referred to as E-MPA or E-KKP3K - a MPA management effectiveness measurement tool and related guidebooks developed specifically for those involved in MPA management. With the E-KKP3K, the KKJI Directorate now has established a baseline for the management status of all MPAs in Indonesia allowing for more effective resource allocation and the provision of targeted support for local governments to better manage and utilize their own MPAs.

MPAG also provided technical support to local government partners, assisting them in the MPA designation process by providing full-time staff who worked with Marine and Fisheries Agency staff. MPAG also engaged local universities to assist with the development of local government policies to further support the designation and effective management of their respective MPAs. The MPAG NGO consortium members have committed to continue to support these MPAs into the future, using other funding sources.

Capacity building for MPA managers is now gaining momentum in Indonesia. The first Specific Competence Standards for Work (SK3), based on the SK3 for MPA Design and Planning and jointly developed by the Directorate of KKJI and Puslat BPSDM (Training Center, Agency for Human Resources Development) will underpin marine conservation activities by ensuring that all MPAs are managed by competent staff. The infrastructure for this certified training is now in place, with further development to be provided by local governments. In due time, all MPA management staff in Indonesia will be officially certified with technical competences required to complete their work. The government has accepted responsibility for the management of this program under the leadership of the Puslat BPSDM and Directorate of KKJI. It is hoped that this government ownership will ensure the sustainability of this program and benefit MPAs in the long-term.

Throughout the implementation of the MPAG workplan, there was a focus on ensuring the sustainability of outputs. The establishment of a database and website designed to serve as a reference for marine conservation stakeholders, including students, local government staff, NGOs and marine conservation practitioners is an example. This website and database (<http://www.kkji.kkp3k.kkp.go.id>.) includes scientific research from relevant universities, NGOs and government agencies and for MPA management. With the leadership and ownership of the database and website resting with the Indonesian government, the sustainability of these outputs will be guaranteed.

A new approach for the management of Fisheries Management Areas (FMA) across Indonesia, developed by the National (Ecosystem Approach to Fisheries Management) EAFM Working Group, has now been adopted. With EAFM indicators and an evaluator network now in place, the establishment of a baseline to measure FMA management effectiveness can commence immediately. While MPAG's technical assistance to the EAFM Working Group has ended, NGOs are now continuing this work using other resources and seconding experts appointed to the Working Group to the KKJI Directorate. This secondment should support the sustainability of the Working Group and the implementation of EAFM in FMA management. Government leadership of the Working Group, along with the active involvement of all stakeholders, will ensure collective ownership of its outputs.

There are a number of lessons learned that can be derived from the implementation of the MPAG including the importance of maintaining good project documentation. MPAG documented all of its outputs produced jointly with NGOs, national government and local governments through material that can be accessed and downloaded at <http://www.kkji.kkp3k.kkp.go.id>. This website contains numerous documents that can be used as a reference to support the improved management of MPAs in Indonesia.

Introduction

Indonesia is located at the epicenter of the Coral Triangle – an area of outstanding marine biodiversity including the waters of Indonesia, Malaysia, the Philippines, Papua New Guinea, the Solomon Islands and Timor-Leste. In 2007, then Indonesian President Yudhoyono initiated a multilateral partnership to safeguard the region's extraordinary marine and coastal biological resources. Coral reefs are habitats for the majority of fish caught by coastal fishers and support millions of jobs and subsistence livelihoods in Indonesia. Yet, the marine and coastal natural resources of the Coral Triangle – and the many goods and services they provide – are at tremendous risk from a range of factors, including: overfishing, unsustainable fishing methods, land-based sources of pollution and climate change. In addition, with more than 17,000 islands, 81,000 km of coastline and 3.2 million km² of ocean, Indonesia's Ministry of Marine Affairs and Fisheries (MMAF) confronts complex and significant marine management challenges.

MPAG grew out of the USAID Regional Development Mission for Asia (RDMA) Coral Triangle Support Partnership (CTSP) program. CTSP was a five year \$32M program focusing on marine conservation across the Coral Triangle region that include waters and coastlines of Indonesia, Malaysia, Papua New Guinea, the Philippines, Solomon Islands, and Timor Leste. Initiated in 2008, CTSP was led by WWF US and included a consortium of Conservation International, The Nature Conservancy, and WWF Offices in the region. USAID Indonesia established the CTSP-I (Coral Triangle Support Partnership-Indonesia) project. Under CTSP-I, a science-based approach to identify priorities and develop plans to improve MPA effectiveness, benefits and coverage was introduced to MMAF improve marine conservation across Indonesia through the establishment of a national MPA system and policies, the adoption of national MPA management effectiveness protocols, and to render significant progress in the establishment and strengthening of MPAs, initiate MPA networks and the conceptualization of ecosystem indicators for an ecosystem-based approach (EAFM) to fisheries management. MMAF adopted this EAFM over three years, with MPAG providing support for its implementation.

MPAG continued the work of CTSP-I, improving and building upon its outputs by solidifying MPA effectiveness, expanding the MPA system towards the Indonesian government's targeted 20 million ha, deepening the integration between project-funded interventions and MMAF framework, and by seamlessly melding the partners' combined efforts into a sustainable, system-wide project approach.

Figure 1: Map showing final expert rankings of conservation priority for marine ecoregions of Indonesia based on biodiversity considerations. Bold number within each ecoregion denote overall ranking while darker areas within each ecoregion denote high priority areas. From: Geographic Priorities for Marine Biodiversity Conservation in Indonesia; a joint publication from USAID Indonesia, MMAF and MPAG.



MPAG Management

The MPAG workplan was implemented by a consortium of NGOs led by the World Wildlife Fund-US (WWF-US), along with Conservation International (CI), the Coral Triangle Center (CTC), The Nature Conservancy (TNC), Wildlife Conservation Society (WCS) the World Wide Fund for Nature Indonesia (WWF-Indonesia), and in close collaboration with MMAF. MPAG field activities were implemented over a three-year period from February 2012 through to January 2015.

The implementation of MPAG activities was coordinated by the Jakarta based Regional Project Office (RPO) which also housed the CTSP project. WWF-US was the holder of the cooperative agreement with USAID Indonesia. For MPAG, the RPO served as the focal point for communication between the government, NGOs and USAID Indonesia, including fulfilling report and data request requirements as well as coordinating field visits and coordination meetings with IMACS (Indonesia Marine and Climate Support project), and the US National Oceanic and Atmospheric Administration (NOAA).

USAID Indonesia provided a budget forecast for activities proposed by the consortium at the beginning of each fiscal year. Each NGO developed a workplan detailing proposed activities, outputs, performance indicators, and a budget. The RPO consolidated these with its own activities, as well as other activities required by USAID as set out in the Annual Workplan. USAID would then indicate:

- a) activities which were approved/rejected/revised;
- b) the amount of funding allocated (which sometimes differed from the proposed amount); and
- c) the expected outputs.

Based on USAID approval, NGO consortium members implemented their activities for one fiscal year using the allocated budget.

Initially and per the cooperative agreement, USAID Indonesia allocated \$6 million to MPAG for a period of three years with \$3 million allocated to MPAG Year 1, \$2 million for MPAG Year 2 and \$1 million for Year 3, with the third year designed as a completion phase whereby all outputs from the previous years would be documented. During MPAG Year 3 however, USAID increased its budget allocation by another

\$2,125,000, which brought the total funding for the MPAG program to \$8,125,000 over three years. This additional funding allowed for the continued implementation of activities and initial MPA establishment work in several new sites.

Achievements at a Glance

The goal of MPAG was to provide technical support to the Indonesian government's MMAF for the designation of new MPAs at eight sites covering 1.8 million ha. The need to ensure the continuation of support for the MPAs was carefully considered in the MPAG design, and local government management units were established to ensure the continuation of work post project.

When designed, MPAG had a target of MPAG providing support for the management of 8 MPAs covering a total area of 8,027,397 hectares. Over the life of project, some jurisdictions reduced the size of MPAs, notably Berau and Savu Sea. Meanwhile, MPAG was invited to help other jurisdictions establish MPAs. By the end of project, MPAG had worked in 16 MPAs covering a total area of 7.5 million ha with the type of support provided depending on the specific condition of each site. Over the life of project, The E-KKP3K management effectiveness tool was used to measure the management status in each site by assessing the impact of the technical support provided using a ranking scheme based on different colors and percentages. In accordance with the MPAG workplan, these assessments were carried out in Year 1 and again in December of Year 3 (2014) at MPAG's conclusion.

The table on the following page shows a summary of MPAG support for the designation of MPAs and the improvement of management effectiveness for supported MPAs over three years.

Table 1: Summary of MPAG MPA Designation/Improvement by Site over the Life of the Project

A. Designation of new MPAs spanning 1.8 million ha at eight sites				
No	Site	Implementing NGO	Output	Management Entity for Site
1	Kei Kecil	WWF	Designation of 150,000 ha	Southeast Maluku district government
2	Anambas	CI	Designation of 1.2 million ha	Loka KKNP Pekanbaru
3	Berau	TNC	Designation of 250,000 ha	Berau district government
4	Nusa Penida	CTC	Designation and determination of 20,000 ha	Klungkung district government
5	Sumbawa	WCS	Designation of 70,000 ha	Sumbawa district government
6	Minahasa Utara	WCS	Designation of 32,000 ha	North Minahasa district government
7	Muna	Puslitbang KP3K - Hasanuddin University	Designation of 70,000 ha	Muna district government
8	South East Sulawesi	Puslitbang KP3K - Hasanuddin University	Designation of 10,000 ha	Southeast Sulawesi district government
B. Improvement of management effectiveness (measured by E-KKP3K) spanning 7.5 million ha				
No	Site	Implementing NGO	Output	Sustainability
1	Kei Kecil-Southeast Maluku	WWF	The management of 150,000 ha Improved effectiveness by 2%	Southeast Maluku district government
2	Anambas- Riau Islands	CI	The management of 1,200,000 ha Improved effectiveness by 17%	Loka KKNP Pekanbaru
3	Berau- East Kalimantan	TNC	The management of 250,000 ha Improved effectiveness by 26%	Berau district government
4	Nusa Penida- Bali	CTC	The management of 20,000 ha Improved effectiveness by 15%	Klungkung district government
5	Sumbawa- NTB	WCS	The management of 2,000 ha Improved effectiveness by 20%	Sumbawa district government
6	North Minahasa – North Sulawesi	WCS	The management of 32,000 ha Improved effectiveness by 20%	North Minahasa district government
7	Muna- Southeast Sulawesi	Puslitbang KP3K - Hasanuddin University	The management of 70,000 ha Improved effectiveness by 20%	Muna district government
8	Southeast Sulawesi	Puslitbang KP3K - Hasanuddin University	The management of 10,000 ha Improved effectiveness by 20%	Southeast Sulawesi district government (Konawe, South Konawe, Kendari city governments)
9	Gili Matra- NTB	WCS	The management of 2,000 ha Improved effectiveness by 19%	BKKPN Kupang
10	West Lombok -NTB	WCS	The management of 21,000 ha Improved effectiveness by 25%	West Lombok district government
11	Central Lombok –NTB	WCS	The management of 22,000 ha Improved effectiveness by 15%	Central Lombok district government
12	East Lombok -NTB	WCS	The management of 10,000 ha Improved effectiveness by 22%	East Lombok district government
13	West Sumbawa –NTB	WCS	The management of 11,000 acres Improved effectiveness by 11%	West Sumbawa district government
14	Savu Sea - NTT	TNC	The management of 3,300,000 ha Improved effectiveness by 12%	BKKPN Kupang
15	Raja Ampat- West Papua	CI	The management of 1,100,000 million ha Improved effectiveness by 31%	Raja Ampat district government
16	Wakatobi- Southeast Sulawesi	WWF	The management of 1,300,000 ha N/A	Ministry of Environment and Forestry

When it was not possible to complete outputs planned for certain project Years, MPAG, with USAID approval carried these activities over to the following year, allowing MPAG to successfully complete 95 percent of its 250 planned outputs by December of Year 3 (2014). The five percent of uncompleted activities included:

- Three of the five Specific Competence Standards SK3 modules.
- sustainable financing targets at national level were not achieved;
- Work was initiated at the Natuna and Sumba Barat MPA; and
- the MenKP partnership decree.

Barriers to achieving outputs within set timeframes were often beyond MPAG control and arose due to a number of factors, such as government counterparts changing their priorities in response to emerging issues or at the direction of senior leadership teams. These changes resulted in delays, changes of course, and in some cases, a cancellation of MPAG activities.

Changes in leadership at both the national and local level also posed problems, with newly posted officials slowing the pace of activities as they took time to adjust to their new roles and understand the joint workplan. In several cases, new officials did not consider MPAG activities a priority, further hampering the achievement of outputs, while in other cases, management changes expedited planned activities. Difficulties in the recruitment of human resources, especially expert staff required for each fiscal year also created challenges for the timely completion of activities. The hiring and mobilization process sometimes took more time than expected, and the more specific the required expertise, the longer it took to identify an ideal candidate.

Activities requiring collaboration between several government work units also affected the achievement of planned outputs due to frequent difficulties in scheduling meetings. Some outputs took the form of documents whose development required a drafting process and input from a variety of government units which sometimes created delays in completing activities. The need to have all newly drafted MPA regulations reviewed by the legal affairs bureau resulted in very long delays, and some drafted regulations

Most of these planned deliverables can still be achieved should they be prioritized by the government. MPAG sent drafts of the three remaining SK3 modules have to the government and the MenKP partnership decree is under legal review. A Sustainable Financing Working Group is established and can easily be convened by the Government to review, analyze and prioritize sustainable financing options for MPAs. Meanwhile the NGOs will continue work on the Natuna and Sumba Barat MPAs with other funding.

The table below shows the number of planned outputs for each MPAG consortium member for each MPAG Project Year along with the number of successfully completed outputs, also expressed in percentages.

Table 2: MPAG Consortium Member Outputs and Achievements Per Project Year

Progress Year 1						
	CI	CTC	TNC	WCS	WWF-I	Total
# of Outputs	27	7	15	5	14	68
# of Achievements	27	7	15	5	14	68
Percentage	100%	100%	100%	100%	100%	100%
Progress Year 2						
	CI	CTC	TNC	WCS	WWF-I	Total
# of Outputs	23	9	21	8	18	79
# of Achievements	22	9	19	8	16	74
Percentage	96%	100%	90%	100%	89%	94%
Progress Year 3						
	CI	CTC	TNC	WCS	WWF-I	Total
# of Outputs	26	12	20	14	31	103
# of Achievements	24	12	19	14	26	95
Percentage	92%	100%	95%	100%	84%	92%
Accumulative Progress as of December 2014						
	CI	CTC	TNC	WCS	WWF-I	Total
# of Outputs	76	28	56	27	63	250
# of Achievements	73	28	53	27	56	237
Percentage	96%	100%	95%	100%	89%	95%

As part of MPAG accountability, all supported field sites were evaluated using the government's official tool for measuring MPA management effectiveness: the E-KKP3K. This tool was used in MPAG Year 1 to establish a baseline measurement for the status of each MPA and then again in Year 3 for comparison. The results of this analysis showed that overall, MPAG intervention brought about an improvement of management effectiveness at all field sites, which is indicated by the achievement of a higher status in the EKKP3K ranking scheme (color and percentage) for each field site. As the E-KKP3K was designed to measure the status of individual MPAs and has not yet been adapted to measure the status of MPA networks, not all MPAG sites were included in this assessment. MPAs under the jurisdiction of the Ministry of Forestry, such as Wakatobi, are not included in the assessment nor were those MPAs were MPAG only initiated later in the project. In the early days of MPAG, the work site selected in Raja Ampat was in fact a network of Marine Protected Areas in the Bird's Head Seascape. However MPAG's work ended up focusing on the Raja Ampat Marine Protected Area, which is currently managed under the local Raja Ampat government. As a result of this change in geographic focus, no baseline information was gathered. As mentioned previously and in accordance with the MPAG workplan, these assessments were carried out in Year 1 and again in December of Year 3 (2014) at MPAG's conclusion.

Table 3. MPA Management Effectiveness: Before and After MPAG Intervention¹

MPA	Declared/Established	Area (Hectares)	Red	Yellow	Green	Blue	Gold		Red	Yellow	Green	Blue	Gold
BASELINE									LAST MEASUREMENT				
Anambas	2011	1,262,686	100	83	0	0	0		100	100	62	5	0
Berau	2005	285,266	100	0	0	0	0		100	100	24	7	0
Gili Matra	2009	2,954	100	100	71	0	0		100	100	86	64	17
Kei Kecil, Maluku Tenggara	2012	150,000	88	0	0	0	0		100	0	0	0	0
Klungkung (Nusa Penida)	2010	20,057	100	100	70	0	0		100	100	45	49	0
Lombok Barat	2011	21,556	100	27	0	0	0		100	73	43	21	17
Lombok Tengah	2011	22,940	100	36	0	0	0		100	46	29	21	17
Lombok Timur	2004	10,000	100	73	0	0	0		100	82	43	25	33
Minahasa Utara	2014	32,217	0	0	0	0	0		100	0	0	0	0
Muna	2014	76,417	0	0	0	0	0		100	0	0	0	0
Raja Ampat	2007	1,125,940	7	7	7	7	7		100	100	81	75	0
Savu	2009	3,355,353	100	91	29	11	0		100	100	52	40	0
Sulawesi Tenggara	2014	10,810	0	0	0	0	0		100	0	0	0	0
Sumbawa (Lunyu)	2014	70,000	0	0	0	0	0		100	0	0	0	0
Sumbawa (Pulau Kramat Bedil Tumedong)	2011	2,000	100	0	0	0	0		100	36	41	18	17
Sumbawa Barat	2011	11,574	100	36	0	0	0		100	36	33	21	17

MPAG Partners

In line with its key objective of supporting the Indonesian government, MPAG partnered with several government work units to implement its workplan. At the national level, MMAF work units included:

- Directorate of Conservation for Areas and Fisheries Species (KKJI), under the Directorate General of Conservation for Areas, Coasts and Small Islands (KP3K)
- Directorate of Fisheries Resources (SDI), under the Directorate General of Capture Fisheries
- Center for Training (Puslat), under the Agency for Marine and Fisheries Human Resources Development
- Technical Management Unit (UPT) Loka KKPN (Agency for National MPAs) Pekanbaru
- UPT BKKPN (Agency for National Marine Protected Areas) Kupang

Responsibility for the coordination of this work rested with the Head of Analysis Center for International and Inter-Agency Cooperation (Puskita) – Secretariat General. Partners at the local government level included Marine and Fisheries Agencies in the following provinces/districts:

- Anambas district– Anambas National MPA
- East Nusa Tenggara (NTT) province and 10 districts within the jurisdiction of Savu Sea National MPA
- North Lombok district - Gili Matra National MPA
- Wakatobi district –Wakatobi Marine National Park
- Klungkung district - Nusa Penida Local MPA
- Southeast Maluku district – Kei Kecil Local MPA
- Berau district - Derawan Local MPA (formerly KKPD Berau Local MPA)
- Raja Ampat district – Raja Ampat Local MPA

¹ The E-KKP3K tool requires the assessment of an MPA against indicators classified into five different colors. When all of the indicators in one color category have been met, the MPA is recorded as having achieved 100% of that category. When only some indicators are achieved, the percentage allocated will reflect the proportion of indicators that have actually been met.

The color red is used to describe an MPA that is still in the initial stages of formation followed by yellow, green, blue, with gold constituting the highest level. An MPA that is designated and has satisfied all of the requirements pertaining to this will 100% in the red category. An MPA does not have to have achieved 100% of a certain color to meet the requirements of a higher color category. For example, under E-KKP3K an MPA with a sustainable funding mechanism in place with its boundaries not yet finalized rank in the (highest) gold category, without 100% of the (lower) green category having yet been achieved.

- Bali province and 8 districts as members of Bali MPA Network
- West Nusa Tenggara province
- West Lombok district – Gita Nada Local MPA
- East Lombok district
- Central Lombok district
- Sumbawa district
- West Sumbawa district
- North Minahasa district - North Minahasa Local MPA
- Muna district – Muna Local MPA
- Southeast Sulawesi province, Konawe district, South Konawe district and Kendari city - Local Southeast Sulawesi

In addition to partnering with local governments, MPAG also worked alongside other local institutions to deliver outputs. For example, MPAG provided grants to local universities to conduct a series of expert reviews to support the development of local government policies for MPA designation. The results of these studies were presented to Bupatis (Regents) to facilitate the issuance of MPA decrees. These MPAG partners included:

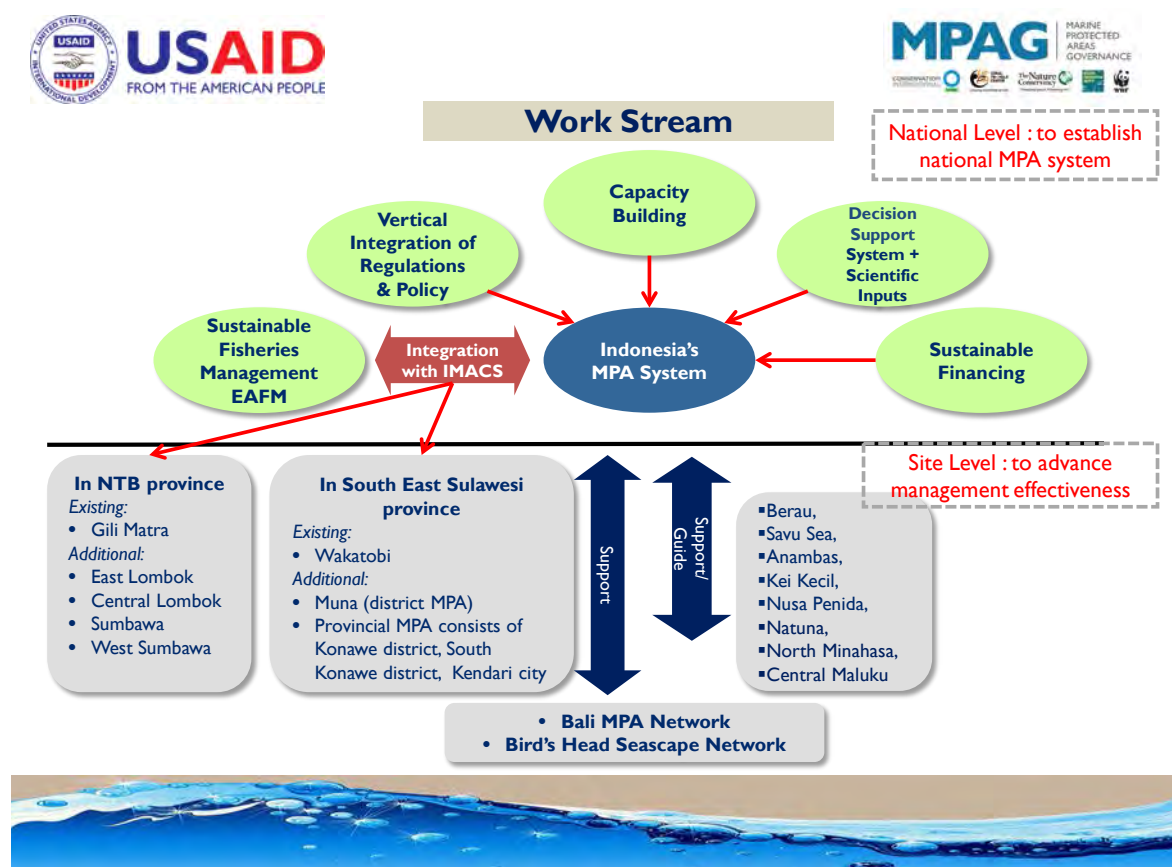
- **Center for Marine Resources Studies – Bogor Agricultural University:** Produced scientific inputs by supporting seven university students to write graduate theses on the use of MPAs for tourism and fisheries management in Indonesia, MPA connectivity, and MPA management.
- **Center for Fisheries and Coastal Resources Studies and Innovation (Puskip) – Mulawarman University:** Carried out a series of meetings with experts to facilitate a Bupati Decree to support the designation of the Berau MPA and led the preparation of management and zoning plans for the Berau MPA, including coordinating public consultations.
- **Center for Research and Development for Marine and Coastal Areas and Small Islands (Puslitbang KP3K - University of Hasanuddin, Makassar):** Similar to Bogor Agricultural University, produced scientific inputs by providing grants to students to write graduate theses on the use of MPAs for tourism and fisheries management in Indonesia, MPA connectivity, and MPA management. The Center also provided technical assistance to the Muna District Marine and Fisheries Agency and Southeast Sulawesi Provincial Marine and Fisheries Agency for the designation of new MPAs and the preparation of management and zoning plans.

Workstream and Performance Indicators

As mentioned, MPAG continued the workstream developed by CTSP-Indonesia which included activities at both the national and site level. At the national level, MPAG supported the Indonesian government in its efforts to reach its target of establishing 20 million ha of MPAs by 2020 through the establishment of a national MPA system. MPAG pursued the work established under CTSP-I by developing supporting marine conservation and MPA regulations and policy, focusing on human resources capacity building, and integrating MPAs with fisheries management.

As part of USAID Indonesia's Marine Resources Program (MRP), MPAG integrated site level activities with IMACS project activities in West Nusa Tenggara and Southeast Sulawesi. While there were no jointly implemented activities in these sites, the two projects pursued a coordinated approach with the Provincial and District Marine and Fisheries Agencies in both provinces. MPAG also worked with the National Oceanographic and Atmospheric Administration (NOAA) to develop capacity building modules and curricula which drew on existing NOAA resources, but were customized to an Indonesian context.

Figure 2: MPAG Workstream



MPAG's work was guided by output indicators approved by USAID Indonesia at the beginning of the project. These Standard Indicators measured the:

- 1) total area under improved management (and with improved biodiversity outcomes); and
- 2) number of trainings delivered and people trained.

In addition to these Standard Indicators, Custom Indicators were developed jointly with USAID Indonesia for each component at both the national and site/activity level. Custom indicators were based on the existing condition of sites prior to MPAG intervention. Activities to be carried out at each site over the three years including final targets were developed in collaboration with USAID Indonesia. Targets and expected outputs varied from one site to another, depending on their respective baseline conditions. The Performance Monitoring Plan (PMP) section in MPAG quarterly and annual reports set out the Standard Indicators and Custom Indicators and measured progress during the life of project. A final PMP covering the life of project can be found at the end of this report.

National Level: Development of a National MPA System

Vertical Integration - Decrees and Guidebooks

In the original CTSP-I workplan, this component was described as "integration and synchronization between regulations at the local level and national level". However, as MPAG started up, there was a recognized need for assistance at the MMAF Ministerial level to support the development of regulatory frameworks. MPAG also recognized the opportunity to work with various levels of government to identify conflicting regulations and instances where there was a lack of regulations and technical guidelines to assist with implementation at the local level.

The development of regulations/policy was carried out by the MPAG consortium and partner team. Over time, the strategy for developing policy became more prescriptive. The team would convene some 10 technical meetings to discuss the issue at hand and possible solutions before a final draft was produced. Policy development was often a joint MPAG/MMAF effort as it was designed to help the government achieve its identified targets. The government was invested in the process and often provided staff and additional funding for activities.

Delays sometimes arose during the review process as ministerial regulations had to be reviewed by the legal affairs bureau. This review process often resulted in requests to change the substance of submitted drafts so that they were better aligned with legal requirements. At times these suggested changes were very significant and were not acceptable to the drafting team, meaning that the policy had to be rethought and resulting in significant delays.

One of the regulations supported by MPAG was a technical guidebook on the E-KKP3K (the tool used to see the level of effectiveness of the management of MPAs across Indonesia) and EAFM measurement indicators. This guidebook provides technical guidance to E-KKP3K and EAFM indicator users to help them interpret the results of their assessments and to plan future activities. The development of these guidebooks was a lengthy process as MPAG felt strongly that field testing of the methodology was a vital part of the drafting process.

During the life of project, MPAG provided support for the development of the following regulations/decree and policies issued by the government:

- Government Regulation on MPA Networks (Permen 13/PERMEN-KP/2014)
- Government Regulation on Specific Competence Standards for Work (SK3)
- Draft of Ministerial Regulation on MPA Partnerships
- Draft of Ministerial Regulation on MPA Utilization
- Director General of KP3K Decree on MPA Management Effectiveness Evaluation (E-KKP3K)
- Director General of Capture Fisheries Decree on EAFM (Ecosystem Approach to Fisheries Management)
- Supplements to MPA management, including:
 - a. Guidelines for the Identification, Inventory, and Designation of MPAs
 - b. Guidelines for MPA Institutionalization
 - c. Guidelines for the Preparation of MPA Management and Zoning Plans
 - d. Guidelines for MPA Infrastructure and Facilities
 - e. Guidelines for MPA Funding
 - f. Guidelines for MPA Determination
 - g. Guideline for the Management of MPA Boundaries
 - h. Guidelines for MPA Biophysical Monitoring (MPA Resources)
 - i. Guidelines for MPA Socio-economic and Cultural Monitoring

Lessons learned from the implementation of this component include:

- Regulations should align with government counterpart priorities. Ensuring buy-in from counterparts can help the process run more smoothly, improve the quality of outputs, and facilitate support from other fields of expertise.
- Legal experts need to be involved in the drafting process from the very beginning as their inclusion will minimize delays by reducing the chance that drafts will require significant overhaul at the legal review stage.
- Issuing a variety of technical guidelines provided an indispensable contribution to MPA management capacities. All guidelines should be of a high quality and field tested with their intended audiences prior to publication.

Integration of Conservation and Fisheries Management - EAFM

Since the CTSP-I program, the integration of marine conservation and fisheries management has been regarded as a project cornerstone. Within MMAF, however, fisheries management has long been seen as separate from marine conservation, a division that is reflected in the separation of the governmental departments responsible for the management of these two issues namely the Directorate General of KP3K - Conservation and the Directorate General of Capture Fisheries (DJPT). The integration of marine conservation and fisheries management and Indonesia's Regional Fisheries Management Areas (FMA) provided an ideal opportunity for this integration. While the Indonesian government has established 11 FMAs, only one had a management plan. MPAG supported the adoption of the Ecosystem Approach to Fisheries Management (EAFM) in FMAs through the National EAFM Working Group composed of representatives of various government stakeholder groups. EAFM integrates the protection of habitats, fisheries resources, capture techniques, economic indicators, social and institutional indicators in a particular Fisheries Management Area. MPAG provided support to the National EAFM Working Group to develop and test a set of EAFM indicators, and to establish a workplan through 2015 which guided MPAG's EAFM integration activities. One of the goals of the workplan was to encourage the adoption of EAFM in all FMA management plans.

To speed up the EAFM integration process, at the request of the Director of SDI, Directorate General of Capture Fisheries, MPAG seconded a conservation expert to assist the Director of SDI to act in a full-time capacity as chairman of the EAFM Working Group. The role of the chairman was to oversee the completion of the EAFM indicators and provide a series of trainings to several universities. Under the leadership of PKSPL IPB, a learning center was formed with members including local universities which carried out measurements on specific FMAs using EAFM indicators. EAFM indicators have now been incorporated into the government's management of FMAs with FMA 718 (Arafura Sea) with the issuance of Decree in 2014 by the Director General of Capture Fisheries being examples of this integration.

To support capacity building for the adoption of EAFM, MPAG collaborated with the Puslat BPSDM in the preparation of an EAFM SK3 training curriculum and module. The main objective of this training and certification was to help relevant government staff develop a common understanding of the implementation of EAFM in FMAs.

Lessons learned from the provision of technical support to the National EAFM Working Group include the importance of mobilizing full-time expert staff and adequate resources to support and accelerate the implementation of Working Group decisions. Following the completion of MPAG's operation, the National EAFM Working Group has continued to implement its workplan with government funding. Meanwhile, the Working Group membership has been updated through the issuance of a Director of SDI Decree.

Capacity Development

To ensure their long-term viability, MPAs must be managed by competent human resources. Prior to MPAG, there were many MPA management trainings provided by a range of actors including government, donor agencies, NGOs and universities. MPAG perceived that many of these trainings were ineffective as many participants were not MPA management practitioners, training modules were not standardized, curricula were sometimes irrelevant and of poor quality, there was no systematic approach or strategy to ensure that participants become competent MPA managers, and there was no systematic effort to follow-up with participants post training. The Indonesian government has established a national training system through Government Regulation No. 31/2008 on the National Training System which mandates that trainings carried out in the government sector must be based on standard competences. The government has also set out a series of procedures for the implementation of competency-based training and has established an independent agency to oversee competency certification processes.

To support the human resources capacity development component of its workplan, MPAG provided technical support to the Puslat BPSDM for the preparation of Specific Competency Standards for Work (SK3) relating to marine conservation along with relevant trainings based on these standards. Initially, the Puslat BPSDM did not have sufficient modules and curricula to support marine conservation training. To complicate matters further, there is some confusion under Indonesia regulations as to which agencies have the purview to develop trainings. MMAF is still in the practice of 'disciplining' training activities undertaken by their technical directorates as, in accordance with the duties and functions that have been standardized, no technical directorate, including KKJI, is allowed to organize any technical training. At the same time, Puslat BPSDM, in accordance with its mandate, should be able to organize any technical training that suits the needs of other technical directorates. KKJI has informed Puslat BPSDM of their need for a MPA manager capacity development curricula, but Puslat BPSDM has no knowledge of this topic and therefore, is not capable of designing and delivering such a training.

Given this situation, MPAG provided capacity building to MPA managers in Indonesia through involvement in a number of activities, including support for the following initiatives:

1. Team 11, a forum for NGOs and governments focused on the design of competency-based training for MPA managers, through the formation of a Capacity Development Working Group whose membership consisted of the Directorate of KKJI, Puslat BPSDM and NGOs. MPAG further supported this by assigning a full-time expert (secondee) to provide assistance to the Puslat BPSDM.
2. The Working Group developed 14 competences required for the management of MPAs using the ARCBC (ASEAN Regional Centre for Biodiversity Conservation) as a resource.
3. MPA management modules and competency-based curricula were prepared, partially based on existing NOAA materials as part of cooperation with NOAA under the MRP. NOAA materials were tailored to the Indonesian context through a training for trainer's workshop using NOAA modules.
4. MPAG supported the issuance of MMAF Decrees for two completed SK3 mandating the establishment of an independent agency the Marine Conservation Professional Certification Agency (LSP Konservasi) to oversee the certification processes. The official launch of the first SK3 for marine conservation was attended by the US Ambassador to Indonesia and the Minister of Marine Affairs and Fisheries.
5. The implementation of a series of training for trainers using NOAA modules, training for assessors and the establishment of a trainers and assessors network at the Puslat BPSDM. Participants included staff from the Puslat BPSDM, Directorate of KKJI, Loka KKPNI Pekanbaru, BKKPN Kupang, and NGO and university representatives.
6. The implementation of the first SK3 training, attended by 26 participants, a majority of them local MPA managers. This training was culminated with a ceremony attended by the US Ambassador to Indonesia and the Minister of Marine Affairs and Fisheries.

In anticipation of the introduction of the State Apparatus Law which stipulates that the majority of public service positions will become functional positions, MPAG worked with MMAF to design all MPA management roles as functional positions by recruiting a group of experts to design a functional position framework which will later become a career path for MPA managers after they obtain the required certification. MPA managers at the district/provincial level are career civil servants and need well defined career paths. This certification may make it easier for them to be promoted within the government hierarchy, or to be promoted without having to be moved out from their current positions. This work was supported by the Secretary of DG KP3K and was proposed to the Ministry of State Apparatus Empowerment and Reform. However, at MPAG's conclusion, while the functional position framework for MPA managers had been submitted to the government, there had not yet been any response or follow-up though there are some indications that these efforts are being taken forward at MMAF.

During MPAG Year 1, two MPA management competencies for MPA design and planning SK3 were successfully developed based on NOAA modules and curricula. The module and curriculum consist of five sections written in a standard format, divided into basic, intermediate and skilled levels. These competencies were piloted at several trainings and were ratified through two Ministerial Decrees. Based on this experience and lessons learned from the process, MPAG set a target to complete another five competencies over the next two fiscal years, however, at MPAG's conclusion, none of the module drafts had been completed. Some modules had reached the final stage (convention and pre-convention), while others were still in their original form and had not been translated into Indonesian. The Directorate of KKJI, as the technical directorate involved with the design of the content of the modules, needed to be more active in the process.

MPAG's achievements under this sub-component was the organization of the first SK3 MPA Design and Planning training attended by 26 participants, most of whom were MPA managers. The development of the infrastructure and human resources to support the delivery of competency-based training marks another significant achievement. In addition to supporting the delivery of SK3 training, during its three-year operation, MPAG has delivered trainings to some 3,600 people representing communities, local government staff, local NGOs, marine sector practitioners etc.

This program has a high level of sustainability, as the training and certification process is part of the national government training system. However, with the conclusion of MPAG support, there is still a series of steps that need to be taken by MMAF, including:

- The completion of modules and curricula for the remaining 12 SK3, including the issuance of the required MMAF Decrees.
- Training for all MPA managers in Indonesia including staff at national and local MPAs. At present there are approximately 100 MPAs in Indonesia, and it is estimated that some 2,000 competent MPA managers are needed to ensure their viability.
- The replication of the SK3 process and programs for the management of Capture Fisheries, Aquaculture, Freshwater Fisheries etc. that sit under MMAF.
- The completion of modules and curricula for the remaining 12 competencies, including KP Publishing Regulation.

To be successful, these trainings should follow these recommendations:

- Trainings should be held at Competency Test Centers (TUK) which at this writing, would only include the Fisheries College (STP) in Jakarta. However, in accordance with the rules, TUK may designate locations besides MMAF Training Centers, i.e. Marine Training Centers (PPKM). An MPAG consortium member – Coral Triangle Center (CTC) – has been approved by the Puslat BPSDM as the eligible training provider. Therefore the SK3 training conducted in PPKM has met the regulatory requirements.

- Training must be delivered by certified trainers or by those who have attended the relevant Training of Trainers (ToT). Since 2012, MPAG worked closely with NOAA to provide ToT at several Puslat BPSDM. Trainees became members of the group of SK3 trainers for the MPA design and planning module.
- Assessors should be individuals who have attended ToT training and have experience as well as practical knowledge on MPA management. Qualified assessors are currently scattered across various government units and NGOs.

Lessons learned from the implementation of this work include:

- Donor support for capacity building should be developed based on a good grasp of the relevant existing government programs and regulations, in this case the national training system. Capacity building is a common component in many donor programs, as is the case with government employment programs. Unfortunately these programs often tend to be fragmented and unsustainable, and impact evaluations of the benefits of training programs are rarely carried out.
- A strong understanding of government programs can enable the aid provided to be more effective and sustainable. At present, the Puslat BPSDM is able to provide training and certification on two of the 14 basic competencies for MPA managers. Government leadership has been essential to this process. Regardless of whether the relevant government agencies lack adequate institutional capacity, support should still be directed to government, so that when the support program has been completed, the process remains ongoing and training can continue with government funds.

Sustainable Financing

The effective management of an MPA requires securing an adequate amount of sustainable funding. Currently, MPAs in Indonesia are managed by either the Ministry of Environment and Forestry, the MMAF, or local governments. The interim results of E-KKP3K measurement reveals that the majority of MPAs in Indonesia have not been managed effectively. Many are still in the red category, which indicates a low level of management effectiveness. One common reason for this is a lack of funding to support management activities.

MPAG initiated efforts to develop sustainable funding mechanisms at both at the national and MPA level and was initiated with the formation of a Sustainable Financing Working Group by the DG of KP3K. The main task of this Working Group was to formulate and recommend measures for the government to take to achieve sustainable financing for the effective management of MPAs. The Working Group estimated that it will take approximately IDR 225 billion (approximately \$17.3 million) per year to cover only a minimal level of management manage all of Indonesia's current MPAs covering some 15 million hectares. Meanwhile, the Working Group found that only IDR 75 billion (approximately \$5.7 million) per year is available for MPA management in the state, local government and NGO budgets rendering a minimum deficit of some IDR 150 billion per year. When periodic maintenance costs, including funding for human resources training was incorporated, the gap grew to IDR 250 billion (approximately \$20 million) per year.

To date, foreign grant aid has been the primary source of expansion and management of Indonesia's MPAs. Traditionally, this aid has been implemented outside the government's planning and financial systems, with grants from foreign donors often channeled through appointed contractors or foreign NGOs. This pattern contains some fundamental weaknesses, in that:

- It has not reflected the funding sources available to marine conservation activities in Indonesia overall since these grants have not been recorded in the government financial system.
- It has been difficult to coordinate this aid with government programs as there is no obligation for foreign grants to be aligned with planned government activities set out in annual and medium-term plans. Some donors have required this synchronization to occur at the implementation level (contractors and foreign NGOs), however, even where consultation with government has taken place, it has often been done sporadically and on a voluntary basis.
- The government has no authority to direct these resources to more effectively reach its own set targets or priorities.

In the spirit of accommodating foreign aid in the government system, Government Regulation 10/2011 was issued to provide more flexibility in the management of foreign grants. One of the features of this regulation is that it allows the option of including a grant in annual local government operational work plans. The regulation also allows government agencies to fundraise to generate more resources for field work.

Once the Presidential Decree 80/2011 for Trust Funds was mandated, the Sustainable Financing Working Group immediately adjusted its workplan to make the formation of a Trust Fund for the management of MPAs in Indonesia a priority. The Working Group envisioned a Trust Fund that would be a part of the government's financial system, yet with some flexibility and freedom of fund management consistent with donor requirements. Furthermore, the fund would be positioned as a source of monies at the national level that would distribute funds to local governments, NGOs, the private sector and other concerned ministries through a grant mechanism.

As of MPAG's conclusion, the Working Group has completed:

- A background paper analyzing differences between the Trustee Institutions (the Trust Funds) mandated by Presidential Decree No. 80/2011 and existing Trust Funds. The paper also analyzed the differences in the functions and roles of various institutions and discussed potential funding sources, including exploring the possibility of debt-for-nature swap talks with creditor countries.
- The design of a Trust Fund organization at the national level that is consistent with that of government institutional structure but allows for the recruitment of competent professionals – be them public servants or not..
- Standard Operating Procedures (SOPs) for the operation of the proposed Trust Fund organization as the highest decision making body.

A series of consultations and technical meetings have been conducted with relevant ministries e.g. Ministry of Finance and Bappenas on the Trust Fund, however, as Trust Funds can only be formed if there are commitments from donors, with an absence of such funding, to date none have yet been formed. Attempts to present the idea at the ministerial level to create greater awareness among government or potential donors have not yet been realized, and these challenges have caused the Working Group to lose momentum in promoting the Trust Funds concept. When the need for outreach was raised in a meeting with the Secretary General and Director General of KP3K, MPAG subsequently prepared supporting communications materials. While providing technical assistance to partners in MMAF on the development of sustainable financing at the national level, MPAG strongly urged MMAF to lead this initiative and carry out an assessment of funding sources from debt-to-nature swaps. Unfortunately, the momentum behind this was lost and the required follow-up steps were not taken.

It is still possible for the efforts initiated by the Working Group to be continued. An internal socialization within the ministry with related working units such as the Secretary General and the Inspector General should be carried out in advance to ensure their readiness. This effort will then enable MMAF to socialize and promote the Trust Funds concept to potential donor countries or donor agencies.

In addition to its work at the national level, MPAG also pursued the implementation of sustainable financing mechanisms in MPAs. With the generation of revenue from visitors and supporting industries such as hotels, restaurants, dive operators, transportation and the like, it was envisioned that this income could be used for MPA management. This concept has been promoted to local governments, although local government financial regulations do not necessarily support the independent management of the potential income generated.

A sustainable financing scheme was initiated in Nusa Penida in 2014 through the establishment of a dedicated Technical Management Unit (UPTD) to manage revenue from the tourism industry in accordance with requirements set out in a MMAF Ministerial Decree. Prevailing regulations, however, prohibit the direct use of collected funds, and any revenue collected must first go to the local government treasury. Any budget reallocations are contingent on prior agreement with local parliament and must be reflected in the annual budget. Thus, under the current financial regime, any revenue collected from marine resources cannot automatically be allocated to finance marine activities.

In Nusa Penida, the local government considered introducing a new method of raising funds through fees for diving, snorkeling and recreational fishing which could potentially increase local revenue. This concept was included in the MPA management business plan which was prepared by KKJI and then refined by MPAG. Thanks in part to studies on tourism potential in the area, multi-party management, tourism agency involvement in the working group, and community participation (jobs) in tourism services and accommodation, Nusa Penida can now implement effective management using sustainable funding sources.

At Gili Matra, a sustainable financing scheme was initiated through the establishment of a stakeholder forum. The NGO EcoTrust collected money from industry to manage its marine resources through patrolling and other monitoring activities. Since 2009 MMAF has managed the MPA while EcoTrust and

other community groups have worked with local industry to manage waste management and water pollution in the inland area. Eco Trust presented their activities at the stakeholder forum, including the amount revenue collected and their annual expenditures.

From the work carried out in Gili Matra, MPAG learned that when an MPA is heavily utilized and provides economic benefits to local stakeholders, the government should implement a collaborative management approach that takes into account the interests of each party involved. With the establishment of a joint forum, stakeholders can be allocated funding to carry out a variety of MPA management functions and even extend that management to terrestrial activities that impact marine resources.

CTSP-I began working in the **Raja Ampat MPA** to develop the governance structures required to support MPA management. The local Raja Ampat government has chosen to form a District Technical Management Unit (UPTD) with a local government public service agency (BLUD) system² to establish a sustainable financing scheme. The choice of BLUD is of particular importance, in that it has the capacity to address the problem encountered by the Nusa Penida MPA by allowing the UPTD/BLUD to independently manage its own revenue and expenditures³. As of December 2014, the Bupati of Raja Ampat had issued four regulations to allow the operationalization of the BLUD.

As many donor funds have been involved in Raja Ampat over the last five years, the establishment of a UPTD/BLUD is part of MPAG's support for the sustainable management of the MPA. The shift from a reliance on donor funds to local government funded activities requires the ability to choose a governance structure that allowed the freedom to generate and collect revenue from visitors and to use those funds for the effective management of the MPA. Cooperation among all related local government agencies, especially the tourism agency, was pivotal in forming the BLUD as their inclusion ensures that sufficient funding is available to implement MPA management plan activities and that these activities are incorporated into the tourism agency's Local Tourism Development Plan.

² The BLUD system applied to a UPTD provides autonomy for the management of revenue, including the management of fees collected from tourists. A BLUD can receive grants directly from other parties and receive local government annual budget allocations.

³ The Nusa Penida MPA is managed by a UPTD (Unit Pelaksana Teknis Daerah- District Technical Working Unit). Revenue collected from utilization of the MPA, i.e. visitor fee, is regarded as local government revenue, which must be channeled to the local treasury first. The UPTD has an annual budget allocated at beginning of each fiscal year for managing the MPA. Thus, the UPTD regime does not allow the direct use of collected revenue. The annual budget allocated to the UPTD does not always have any relation with total revenue collected or the cost of managing the MPA effectively.

Decision Support System and Scientific Inputs

There is a need for good systems and strategies to reach the Indonesia government's target of establishing 20 million hectares of MPAs and ensuring their effective management. The development of a comprehensive database can help support effective decision making processes for MPAs. Data on marine conservation in Indonesia is still scattered across a wide range of sources. While previous conservation projects such as MCRMP, CRMP and COREMAP II had access to their own data on their specific areas of work, this data and information have never been systematically collected and documented into a centralized database. Some NGOs have already worked in a particular site for many years and have developed important data on the area, but to date, there has been no standardized mechanism available for the sharing of data or experiences and lessons learned with other stakeholders who may be working on the same issue or in the same site.

A review of marine conservation data in Indonesia indicates that it is owned, managed and collected by a variety of parties. Some parties may possess data relevant to marine conservation but have not published it or devised a mechanism to make it accessible to others. The review also indicates that many MMAF working units already possess data relevant to marine conservation. Other government agencies outside MMAF such as LIPI and BIG (Geospatial Information Agency) also have marine conservation data while NGOs possess their own marine conservation data specific to their specific working sites.

Together with the KKJI it was agreed that, for efficiency and in an effort to attribute and recognize data sources, their centralized database should be managed according to principles of data custodianship. To facilitate the exchange of data or information, a Data Sharing Agreement should be established, especially with non-government institutions. Such agreements will facilitate the exchange and dissemination of data and render it more efficient and accessible to interested stakeholders.

MPAG supported the development of a decision support system (DSS) marine conservation database by providing technical assistance to the Directorate of KKJI. By MPAG's conclusion, the following outputs had been achieved:

- A marine conservation database is housed at and maintained by the Directorate of KKJI.
- The official Directorate of KKJI website, which is part of MMAF, and DG KP3K websites have been redesigned. Information is available in both Bahasa Indonesian and English and is updated periodically. The website has been visited by 1.6 million visitors since it was revamped two years ago.
- Standard Operating Procedures have been developed by an MPAG secondee and KKJI staff to support database management and website maintenance.

In addition to these outputs, MPAG's secondment of expert staff to KKJI over a two year period resulted in a transfer of knowledge to KKJI staff.

The sustainability of the DSS depends entirely on the Directorate of KKJI. Although there are staff available who can operate the database and update the existing website, the collaboration of other sub-directorates is essential to provide news or activities to be posted onto the website. The KKJI should allocate dedicated staff to ensure that the database and website are maintained.

Scientific Inputs

There is still only a very small body of research or documented research data on the topic of MPA management in Indonesia. Universities, NGOs and others carrying out this research do not have channels to publish the results of their work so that it can reach marine conservation stakeholders and the general public in a format that can be readily understood. While there are instructional guidebooks, there is still a lack of training and information dissemination on MPA management available to MPA managers and other marine conservation stakeholders for research-based information and knowledge.

One of the biggest questions facing MPAs in Indonesia is whether they have any utility. Empirical data has the capacity to provide evidence of their value. To this end, MPAG provided support to the generation of scientific inputs to support the expansion and management of MPAs by providing travel grants to more than 16 students to assist them in the completion of graduate level research. The goal of this support was simple: to provide scientific evidence that MPAs have proved to be beneficial to the development of sustainable tourism and fisheries as well as habitat protection.

In addition to supporting research, MPAG also documented experiences and practices carried out in particular marine conservation areas in Indonesia. The Bali and Natuna MRAP documents, for example, should be useful references to support MPA establishment in other areas. These documents, along with MPA management and zoning plans, can be accessed at the KKJI website <http://www.kkji.kp3k.kkp.go.id> under the scientific inputs category.

In essence, through this website, MPAG together with the Directorate of KKJI is attempting to facilitate the exchange of knowledge or scientific research for the benefit of marine conservation stakeholders. It is hoped that students, researchers, local government and management practitioners will utilize the site to access scientific inputs, practical documents, regulations and other materials related to conservation. By the end of MPAG's operation, the publications produced or financed by MPAG had been codified and published through various media.

Seconded Experts

Seconded experts are qualified professionals hired to work full-time at MPAG counterpart offices. This assistance came about in response to requests from MPAG partners for the provision of expert support to assist with specific technical issues, strategy formulation, or supplying specific information at the request of strategic decision makers. Partners felt that expert support was necessary to guide activities that were new or differed from routine technical work. In seconding these experts, MPAG continued the CTSP-I model of providing technical assistance, however at a higher level. According to the MRP mid-year evaluation, the secondment program was one of MPAG's most effective and efficient intervention methods.

During its operation, MPAG provided the following secondments to counterparts:

- a. Directorate of KKJI:
 - An expert was assigned to assist in the development of marine conservation policies and regulations in Indonesia. In the final quarter of MPAG Year 3, at the request of the Director General of KP3K, this expert was assigned as the Executive Secretary of COREMAP-CTI, ensuring the sustainability of work carried out by MPAG.
 - An expert was mobilized from MPAG Year 1 onwards to establish a conservation database, a redesign of the KKJI website <http://www.kkji.kp3k.kkp.go.id>, and the development of SOPs for the management of this database/website. This work was carried out with KKJI staff who had been designated as operational partners.
- b. Puslat BPSDM:

MPAG assigned an expert to the Puslat BPSDM to develop marine conservation based training content and to support the development and implementation of a marine conservation competency-based training in Indonesia.
- c. Directorate of SDI:

At the request of the Director of SDI, MPAG assigned a conservation expert with a fisheries management background to the Directorate to assist in the preparation of an FMA management plan and ensure the inclusion of conservation components in FMAs. This assignment was continued through the conclusion of MPAG in accordance with a request from the Directorate.

In MPAG Year 3, each consortium member was asked to expand the scope of their work by providing technical assistance for the designation of new MPAs or by focusing on increasing the management effectiveness of existing MPAs. As a result of this effort, WCS was successful in encouraging the designation of the North Minahasa MPA, while CTC initiated the designation of the Banda MPA which built upon three community-based MPAs.

At an MRP meeting held in Jakarta in March 2014, government representatives from the Southeast Sulawesi and West Nusa Tenggara provinces requested technical assistance from MPAG for the designation of new district/city level MPAs and improve the management effectiveness of their existing MPAs. USAID Indonesia approved this request, and by project end, MPAG had provided technical assistance to five district level governments in West Nusa Tenggara and two new MPAs in Southeast Sulawesi. In West Nusa Tenggara, through WCS, MPAG assigned an expert to work at Marine Affairs and Fisheries Agencies. This work resulted in the declaration of the new Lunyuk MPA, and a significant improvement in the management effectiveness of four other MPAs in the province.

Meanwhile, in Southeast Sulawesi, expert assistance was provided through Puslitbang KP3K, University of Hasanuddin. Through this work, at the end of operations in December 2014, MPAG had facilitated the declaration of a new district level MPA in Muna and a provincial level MPA in Southeast Sulawesi

covering the cities of Konawe, South Konawe and Kendari. These two MPAs are now finalizing management plans required to support their legalization via Ministerial Decree.

Lessons learned under MPAG's secondment program include:

At the district/city level:

- a. The Local government should be engaged and supportive of the secondment.
- b. Experts should focus on specific technical issues and collaborate with relevant government agency staff in their development.
- c. These secondments provide an opportunity for capacity development within local government agencies.
- d. Local governments require support from experienced staff who can bring practical knowledge from outside the region and who can facilitate interaction between district government agencies and MMAF. Seconded staff are more effective when they possess proven expertise in their given field; hiring junior staff for these secondments is not as effective.
- e. Assigned experts from respected institutions such as local universities have a better chance of achieving their goals (the development of regulations or policy including Decrees, Regional Regulation etc.) as regional leaders such as Bupatis and Governors tend to hold universities in high regard when it comes to technical matters and policy.

At the Ministerial level:

- a) The secondees should have seniority and expertise. In Year 1, although proposed and approved by the MPAG counterpart, the assigned seconded assigned to the KKJI was not a senior staff member, which ended up minimizing his effectiveness. He was replaced with a more senior staff member.
- b) Seconded experts should bring new technical and policy knowledge and approaches.

Study Tour to New Zealand

In recent years, MMAF has encouraged the development of a new paradigm for the management of MPAs through the promotion of a management approach that seeks to benefit all MPA stakeholders. One potential way of achieving this is through the development of MPA-based tourism. The ideal MPA is one that directly benefits the local community and where the local community is involved in the management of the MPA. The development of MPA-based tourism should benefit local communities as well as local government through increased revenue from economic activities such as restaurants, hotels, tourist guides, transportation, and other supporting industries.

Tourism development requires a number of supporting factors including infrastructure, competent human resources, suitable tourism sites, supportive culture and regulations etc. Furthermore, MPA-based tourism is different from general tourism as MPAs have limited carrying capacity and not all tourism sites in many MPAs have a broad appeal. The uniqueness of MPA tourism requires the development of specific government policy/regulations.

To ensure success, MPA-based tourism should be delivered through partnerships, whereby the authority and functions of each party are clearly defined. Under current regulations, MMAF and the local government are responsible for leading the development and implementation of MPA tourism in any given site. Any strategic policies and regulations that are produced to support the development of MPA tourism should prioritize:

- a spirit of partnership and the engagement of all stakeholders;
- the greatest benefit to the surrounding community; and
- habitat protection as a cornerstone of effective management.

At present, there are few examples of MPAs in Indonesia that have successfully provided benefits to local stakeholders, and there are only a few MPAs that have developed independent funding mechanisms (Nusa Penida, Gili Matra and Raja Ampat MPAs). In Year 3, MPAG arranged a study tour for policy makers from across Indonesia, to provide them with a comprehensive picture of what it takes to successfully develop tourism initiatives in MPAs. The purpose of tour was to allow participants a firsthand view of:

- a. sustainable funding mechanisms for tourism-based MPAs;
- b. tourism-based MPA sites; and
- c. examples of policies and regulations that prioritize community engagement and fair profit sharing to ensure effective management.

By seeing some successful MPA-based tourism practices firsthand, participating policy makers were expected to gain a practical understanding of how MPA tourism could be applied in an Indonesian context. It was also hoped that upon their return to Indonesia, they would initiate the policies/regulations to support the utilization of their respective MPAs for tourism development.

New Zealand's Hauraki Gulf Marine Park (HGMP) was selected for this visit as it has several tourism sites and a commitment to community engagement. The Park also has policies and regulations in place that enable it to use tourism-based revenues as a sustainable funding source. The New Zealand Tourism Institute – Auckland University of Technology assisted MPAG with the study tour, and they designed the program with a primary focus on aspects of MPA management and the utilization of MPAs for tourism.

This Study Tour was planned to occur during MPAG's final year of operation with the specific timing of the visit coinciding with New Zealand's high tourism season. The eight day study tour delegation was led by the Vice Governor of East Nusa Tenggara with participation from the Sabang MPA (Bupati and Head of Bappeda [Local Development Planning Agency]), Kei Kecil MPA (Bupati and Head of Bappeda),

Anambas (Head of Bappeda and Secretary of Tourism Agency), Savu Sea MPA (Vice Governor and Bappeda NTT [East Nusa Tenggara] staff), BKKPN Kupang, Directorate of Conservation and four NGO staff. MMAF covered the costs of sending staff from its Legal Bureau and the Secretary of DG KP3K on the trip. Unfortunately, delays in visa applications prohibited some invited Bupatis from taking part in the tour.

Before departure, each participating region completed a questionnaire to assess their understanding of tourism. Findings indicated a general lack of adequate infrastructure for the development of a tourism industry including hotels and restaurants. The questionnaire also found a lack of preparedness and understanding about tourism among local populations.

The study tour created momentum for tourism-based MPAs. For many local governments, tourism is a much easier concept for to grasp, as opposed to discussions that simply focus on MPA management issues. Developing a local MPA-based tourism industry provides an opportunity to improve the welfare of their people, however, finding a balance between tourism and marine habitat conservation remains a challenge. The capacity to develop MPA-based tourism in the future will require the support of tourism practitioners and the willingness of local peoples and local governments.

Following the study tour, MPAG facilitated a follow-up meeting with the relevant heads of district agencies from participating regions to determine their interest in pursuing tourism development and identify any specific training/information needs to move forward. MPAG had planned to mobilize consultants to provide support to participating local governments, however this activity had to be canceled due to time constraints and a lack of funding.

Going forward and post MPAG, as a part of its capacity development NOAA will assist MMAF in introducing MPA-based tourism initiatives through COREMAP CTI as a part of their 2015 workplan. A framework will be developed to support local governments for tourism development including access to a pool of expert mentors.

Site Level: Development of a National MPA System

Over the life of project, MPAG provided support for the management of 16 MPAs covering a total area of 7.5 million ha with the type of support provided depending on the specific condition of each site. Below is a summary of advances at each site.

Anambas Marine Recreational Park: 1,262,686 ha

Anambas was designated as a 1,262,686 ha Marine Recreational Park (MRP) via MMAF Decree No. 35/MEN/2011 and is managed by Loka KKPNI Pekanbaru. Located in the northern part of Lesser Sunda, it had never been the focus of conservation efforts prior to MPAG.

MPAG supported a Marine Rapid Assessment Program (MRAP) in Anambas which produced baseline data for the development of the management and zoning plans required for the designation of the MRP. In addition, MPAG provided support for the training of MRP managers as well as technical input/recommendations for the preparation of the Tourism Development Plan and Small Islands Master Plan.

The MRAP documented the MRP's biodiversity, oceanographic and socio-economic aspects. The socio-economic survey was included an assessment of the Napoleon wrasse trade as, although a protected species, it has also been an important food and income commodity for the local community for over 30 years. The MRAP found that Anambas was home to 667 species of coral fish and 370-400 species of stony coral, a level of abundance comparable to that found in Komodo National Park, and is even richer than that found in the Banda Islands.

The results of the MRAP were used as a reference for a working group consisting of Loka KKPNI Pekanbaru, Anambas district Marine and Fisheries Agency, NGOs, and fishers' groups to develop management and zoning plans. Following a long consultation process with the local community and the KKJI, MMAF issued Decree No. 37/KEPMEN-KP/2014 to establish Anambas as an MRP.

As the MRP is located in the vicinity of the operations of three oil and gas companies (Conoco Philips, Star Energy and Premier Oil), MPAG supported private sector engagement in the management of the Anambas MRP. Together with Loka KKPNI Pekanbaru, MPAG worked with Corporate Social Responsibility staff from the three companies to facilitate their support for MRP management which was also supported by SKK Migas, CI Indonesia, PT Telkom, Pertamina, PT Pegadaian, PT Jamsostek, PT Askes, PT ASDP, PT Angkasa Pura, Conoco Philips, and Star Energy.

Over the course of the project, MPAG provided a number of capacity building trainings for MPA managers and local communities on marine resources management including trainings on MPA Management (MPA 101 training), Community-based Sustainable Tourism, and Resource Use Monitoring (RUM) to facilitate community engagement in program monitoring. The Anambas MRP now has management and zoning plans in place, as well as protocols for surveillance, fish monitoring and turtle preservation, and has the full support of the Anambas District Government. As a result of these improvements, at the completion of MPAG's work, the management effectiveness of the Anambas MRP had increased by 17 percent.

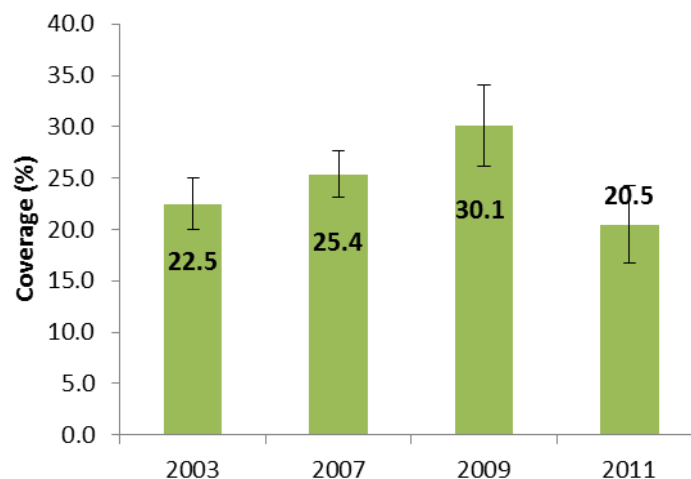
The support of the local government, private sector and community was key to designation of the Anambas MRP. Both the community and the local government had high hopes that the MRP could become a tourist destination, however these may need to be tempered in light of the area's current lack of adequate tourism infrastructure, including frequent airline transportation. There is the risk that if these aspirations are not realized immediately, support for the Anambas MRP could wane.

Derawan Islands Coastal Park / Berau: 285,266 ha

Located in the Northern Borneo Marine Ecoregion, the Berau Sea is an area with important biodiversity value, especially for turtles, mangroves, coral reefs, and coastal fisheries resources. A Rapid Ecological Assessment conducted in 2003 revealed that the area was home to 507 hard coral and 872 of coral fish species. It is also home to 66,122 ha of coral reefs (14 percent of the total coral reefs in the Sulu Sulawesi Marine Ecoregion) and 49,000 ha of mangroves (81 percent of all mangroves in the Sulu Sulawesi Marine Ecoregion).

Under CTSP-I, TNC monitored biodiversity in Berau from 2003-2011 using various rapid assessment methods. Live hard coral cover (LHCC) is commonly used as an indicator of reef health, and the 22.5 percent coverage found in Derawan MPA in 2011 is considered low. While HCL improved until 2009, TNC conducted the assessment using differing survey methods and different depths over time. In 2009 and 2011 a transect method was used as over time, this method has proven to yield higher accuracy. The assessment found that HCL rates declined in 2011 over 2009 measurements reflecting reduced MPA management and surveillance efforts and an increase in unsustainable fishing practices (including dynamite fishing) in the area.

Figure 3: Percentage of LHCC in Derawan MPA (2008 – 2014)



The Derawan Islands Coastal Park was originally initiated as the first local Sea Conservation Area (*Kawasan Konservasi Laut Daerah - KKLD*) in Indonesia in 2003 through the issuance of Bupati Decree No. 31/2005, which established the Berau Coastal Area and Sea as the Berau Sea Conservation Area spanning 1,270,000 ha. However, the follow-up process which included the preparation of a management plan and the development of a joint management body was put on hold due to differences in procedures, work approaches, and communication barriers between the relevant parties working on the conservation area's development.

In 2010, a group of stakeholders expressed renewed interest in moving forward with the designation process. MPAG provided support by facilitating a review of the proposed size of the area, while Puskip - Mulawarman University provided technical support to the District Marine and Fisheries Agency. This work resulted in the issuance of Berau Bupati Decree No. 516/2013 on the Designation of the Derawan Islands Coastal Park as a Coastal and Small Islands Conservation Area spanning 285,000 ha. While this area is 75 percent smaller than the original proposed area, there is now widespread support for the conservation area.

MPAG also provided support to improve the management effectiveness of the Coastal Park. In 2010, the management status for this park was still at zero percent, indicating that there were no management arrangements in place. The park's management status now sits at 26 percent, indicating that there are competent human resources in place who have undergone the required SK3 certification training.

The management and zoning plans for the Coastal Park were finalized through public consultations and revisions which are currently being reviewed by district level authorities. The Park's management unit is also under development; it will be managed by the District Marine and Fisheries Agency, and will take the form of a District Technical Management Unit (UPTD).

Through its work on the Derawan Islands Coastal Park, MPAG learned that providing long term technical assistance to local government for the preparation of policy/regulations requires an enabling environment. Initial support was provided to district Marine and Fisheries Agencies who encountered challenges in coordinating with other local government agencies in the Berau Sea area. In light of this coordination challenge, MPAG found it useful to engage the support of the Puskip - Mulawarman University, which was effective in encouraging the local government to issue regulations involving other local government agencies.

Gili Matra Marine Recreational Park: 2954 ha

Located in the Lesser Sundas Marine Ecoregion, the Gili Ayer, Gili Meno and Gili Trawangan Marine Recreational Park, otherwise known as the Gili Matra Marine Recreational Park or Gili Indah Marine Recreational Park, is one of the National Marine Conservation Areas previously under the management of the Ministry of Forestry and established through the Minister of Forestry Decree No. 99/Kpts-II/2001. On March 4, 2009 the management of this area was handed over to MMAF, as stipulated in the Handover Record of a Nature Reserve Area and a Nature Conservation Area from the Ministry of Forestry to the MMAF No. BA.01/Menhut-IV/2009 – BA.108/MEN.KP/III/2009. The MRP is now managed by BKKPN Kupang out of its office in Pemenang, North Lombok, and was legalized via MMAF Decree No. Kep. 67/MEN/2009 on the Determination of the Gili Ayer, Gili Meno and Gili Trawangan Islands National Marine Conservation Area in West Nusa Tenggara province.

When MPAG began in 2009, the MRP did not have management or zoning plans in place. Given the popularity of the site as a tourism destination, the development of these documents was considered a matter of urgency. MPAG provided support for the preparation of the plans while also promoting the concept of collaborative management (co-management) between the MRP managers and other relevant stakeholders in the area. In addition, MPAG also supported ecological and socio-economy surveys, the development of Standard Operating Procedures (SOPs) and provided training to managers and stakeholders, all of which contributed to an increase in the management effectiveness of the area. By the completion of MPAG, the management effectiveness of the MRP had increased by 19 percent.

Since it was handed over to MMAF, the Gili Matra MRP has become an international tourist destination and is a mainstay of the North Lombok district economy. Tourism stakeholders in the region have established thematic groups focusing on transportation, the distribution of food and beverages, and regional environmental sustainability (through the Gili Ecotrust). In 2009, MMAF, having only recently taken over responsibility for the MRP, was seen as a "new player", therefore the involvement of all parties in the management of the area was absolutely necessary. At the same time, this large number of players delayed the development of the management and zoning plans and while these should have been completed in MPAG Year 2, they were not completed until MPAG Year 3.

Currently, BKKPN's role as the official manager of the area is still relatively small compared to that of groups that were already present in the area. The BKKPN lacks human resources capacity building and additional personnel to carry out duties such as patrols, resources monitoring and ecosystem restoration.

Considering the significant pressure exerted by tourism, in the near term it is important to calculate the environmental carrying capacity of the region, and to develop an action plan based on the results of this study.

West Kei Kecil: 150,000 ha

Located in the Banda Sea Marine Ecoregion, West Kei Kecil is well known as an important area for foraging leatherbacks and five other turtle species: green, hawksbill, olive ridley, loggerhead and flatback. The region is also a migration path for several species of whales. The presence of leatherback turtles is not only important to the culture and traditions of the local community, but they also provide opportunities for special interest tourism. The local government of Southeast Maluku, Kei Kecil, regards tourism that includes local community involvement as one of their top priorities.

Since 2004, a local NGO, Yayasan Siran, has worked to reduce leatherback poaching in the area. Their conservation strategies have focused gaining public support for the conservation of sea turtles through education and community involvement. The West Kei Kecil MPA was initiated in 2009 through CTSP-I, not only for the protection of sea turtles but also as part of a sustainable fisheries management strategy.

On May 4, 2012, West Kei Kecil was designated as a local MPA via Southeast Maluku Bupati Decree No. 162/2012 covering an area of 150,000 ha. On July 6, 2012, the Indonesian Minister of Marine and Fisheries, Deputy Administrator of USAID, and the US Ambassador to Indonesia attended an event hosted by the local government at which the Bupati of Southeast Maluku officially announced the establishment of the MPA. Three local *Ratschaps* (local kings) then signed a declaration plaque. The involvement of the *Ratschaps* is an important part of the management of the MPA as leatherback turtle hunting has long been regulated by local custom. To further understand this cultural link between leatherbacks and Kei islanders, a study was conducted by the University of Pattimura, Ambon.

Following the designation of the West Kei Kecil MPA, the development of the required management and zoning plans stalled. In response, MPAG provided technical support and expert consultancies to the local government. The Kei MPA management unit organized a basic MPA training (MPA 101) for both government officials and the surrounding community. Meanwhile, the MPA managers themselves took part in a training on implementing resource monitoring, and monitoring of coral health and Spawning Aggregation (SPAG), as well as undergoing SK3 training and certification.

Tourism development is a major focus of the Southeast Maluku district administration, with the main tourist destination in the area the West Kei Kecil MPA. As part of efforts to develop a sustainable funding mechanism, MPAG facilitated the participation of the North Maluku district Bupati and the Head of Bappeda in a study tour to Auckland, New Zealand, to visit models of coastal area tourism management that might be applicable to West Kei Kecil MPA.

With this support and by the end of 2014, West Kei Kecil was ready to be approved as a local MPA by MMAF, with the required management and zoning plans, and the management unit operational documents completed. Measurement of the management effectiveness of the West Kei Kecil MPA at the end MPAG's operation showed only a small improvement of 2 percent. Although the local government was very enthusiastic about establishing the MPA, their lack of capacity became a major barrier. In retrospect, more technical and practical assistance such as exchanges with other MPA managers would have been useful to overcome these challenges. The involvement of local government in the technical aspects of the preparation of the required documentation from the outset would have also greatly assisted the process.

Nusa Penida Marine Recreational Park: 20,057 ha

Located in the Lesser Sundas Marine Ecoregion, the Nusa Penida Marine Recreational Park covers three main islands in Southeast Bali: Nusa Lembongan, Nusa Penida and Nusa Ceningan. The islands have a high level of biodiversity as revealed by a rapid assessment conducted in 2008, including a rich diversity of species of reef fishes, corals and invertebrates (298 species of coral, 576 species of coral fishes, five of which are new to science). The islands are also known as a gathering place for Mola mola fish and manta rays whose predictable presence each year is an important diver tourist attraction. Whales and dolphins also migrate through the waters of the western and eastern islands while mangroves still thrive in the northern part of Nusa Lembongan.

TNC began actively working in this area in 2003 through the "Reviving the Beaches of Bali" project. This work generated a positive image of Bali and provided a wealth of information about its beaches and marine areas - which if managed properly could provide benefits to local communities through tourism, fishing and seaweed farming. CI had also conducted scientific studies, Mola mola satellite tagging and a biodiversity and ecology rapid assessment together with TNC and the Indonesian Institute of Sciences (LIPI).

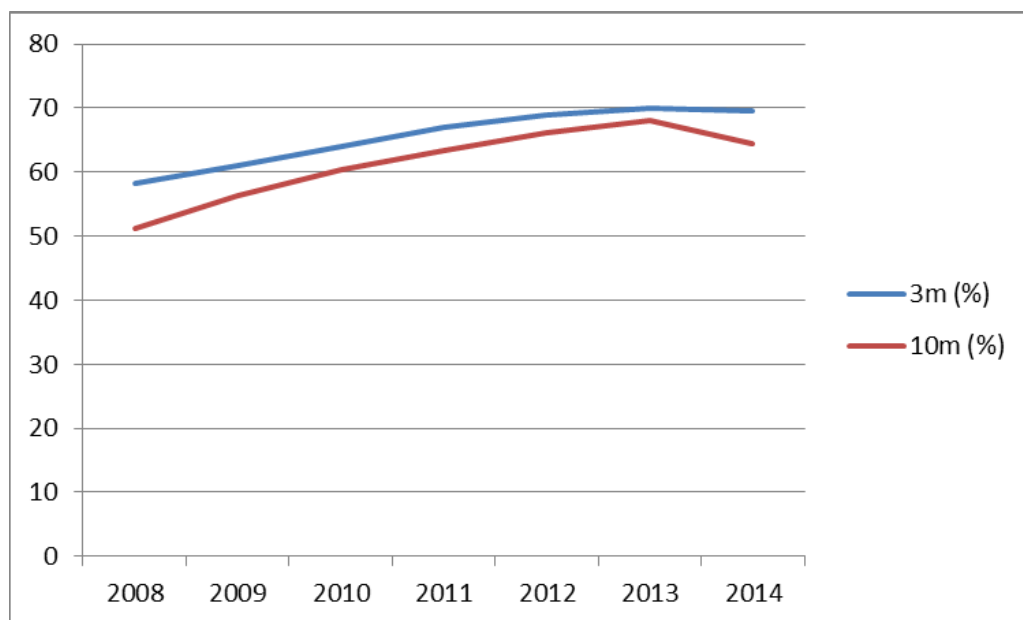
In 2010, the 20,057 ha Nusa Penida Marine Recreational Park was designated by the Klungkung District Government at a ceremony attended by the Minister of Marine and Fisheries, Klungkung District Bupati and US Ambassador to Indonesia. CTC continued activities initiated by TNC and established the area as a Learning Site and working with the local government to manage this MPA together with local communities.

MPAG supported the further establishment of the MRP by assisting with the preparation of the required management and zoning plans, protocols, a sustainable funding-concept document, and ecological and socio-economic survey documents. On June 9, 2014, on the sidelines of the Nusa Penida Festival, the Minister of Marine Affairs and Fisheries announced the establishment of the Nusa Penida MRP via Minister of Marine Affairs Decree No. 24, 2014. By the end of MPAG, the management effectiveness of the MRP had increased by 19 percent.

As a tourist destination, the Nusa Penida MRP is especially popular for its beaches and marine recreation activities. The biggest challenge in an area as popular and accessible as Nusa Penida is to reach agreement on its management and zoning. There is a real need to disseminate newly issued regulations to all relevant stakeholders, as they often entail significant changes to existing rules and procedures. Through participation in the MRP process, MPAG could see that tour operators were recognizing the importance of the ecological health of the ocean and coastline for their businesses. As the area stands to gain popularity, the environmental carrying capacity of the area must be addressed by MRP management. There is also a need to reach important agreements around such matters as the use of mooring buoys, spatial planning and codes of conduct as well as regulations on human interactions with Mola mola and manta rays.

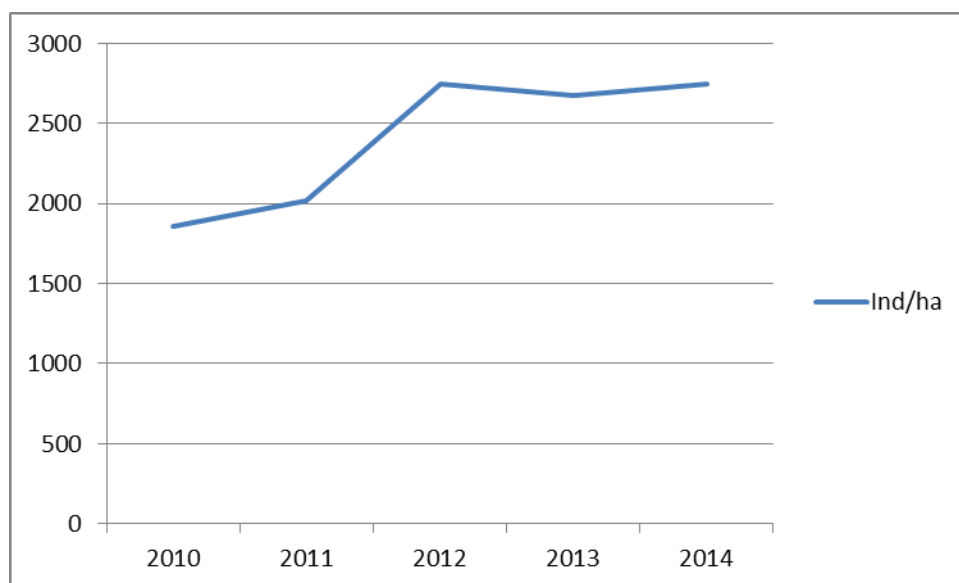
The Coral Triangle Center conducted Reef Health Monitoring in Nusa Penida MPA from 2008 – 2014 as a tool to measure biophysical condition within the MPA. In general the percentage of live hard coral cover (LHCC) and fish abundance are increasing in Nusa Penida MPA. The graph below shows the percentage of LHCC in Nusa Penida MPA at 3 meter and 10 meter depths. At 3 meters, LHCC increased over time to a peak of 70 percent in 2013 and remained stable in 2014. At 10 meters, LHCC increased over time to 68 percent in 2013 and then slightly decreased in 2014 to 64 percent cover.

Figure 4: Percentage of LHCC in Nusa Penida (2008 – 2014)



The graph below shows that fish (ind) abundance in Nusa Penida MPA increasing slightly from 2010 to 2011 and peaked at 2745 ind/ha in 2012 with abundance remaining stable through 2014.

Figure 4: Fish Abundance in Nusa Penida MPA (2010 – 2014)



Savu Marine National Park: 3,355,353 ha

Located in the Lesser Sundas Marine Ecoregion, the East Nusa Tenggara (NTT) Provincial Government was significantly involved in the spatial and regional zoning process for the Savu Marine National Park which was declared on May 13, 2009 at the World Ocean Conference in Manado (Minister of Marine Affairs and Fisheries Decree KEP.38/MEN/2009). Located in NTT and covering 11 districts /cities with a total area of some 400,000 ha (including the Alor local Sea Conservation Area), it is the largest marine conservation area in the Coral Triangle.

The Savu Marine National Park covers the "Indonesian throughflow" - a North-South ocean current connecting the Pacific and Indian Oceans. This region is an important shipping lane as well as a key migration corridor for many marine animals, and a major big-eye and yellow-fin tuna fishery. Its coastal coral reefs are very diverse and provide important habitat for many marine species, in addition to supporting the livelihoods and economies of coastal communities. Like other areas in Indonesia, the biggest threat facing the region is destructive fishing practices (bombs, cyanide and environmentally unfriendly fishing gear), as well as over-fishing.

MPAG's work in the Savu Sea has focused on capacity building and the project has supported the East Nusa Tenggara Marine Conservation Council and the formation of the Rote Ndao District Marine Conservation Forum. The role of these councils is to formulate recommendations for priority programs to support and align development goals between the government of East Nusa Tenggara and the Savu Sea MNP and to learn about new opportunities such as marine tourism.

In late 2014, a BKKPN (Agency for National Marine Protected Areas) boating accident occurred near Rote inside the Savu Marine National Park. As a result of this incident, all BKKPN and Savu Sea MNP marine activities were suspended, and a review of their marine operations and safety protocols was carried out. TNC, BKKPN, and Reef Check issued a revised set of standard operating procedures including resource use monitoring protocols and protocols relating to sea grass and coral reef health.

To garner continued support for the area, TNC and partners produced information and awareness raising materials about the Savu Sea MNP, including a 2015 calendar and t-shirts for distribution in communities across the MPA. The E-KKP3K assessment for the Savu Sea MNP during the MPAG life of project shows a significant improvement in management, however, there is a need for additional investment in adequate human resources, equipment and infrastructure.

Wakatobi National Marine Park: 1,390,000 ha

Located in the Sula Sulawesi Sea Marine Ecoregion, Wakatobi was established as National Park in 1996. The National Park includes the islands of Wangi-Wangi, Kaledupa, Tomia and Binongko and covers a total area of 1.39 million ha. Wakatobi ranks as one of the highest priorities for marine conservation in Indonesia. It is also a logical centerpiece for a network of mutually-replenishing MPAs along the southeastern coast of Sulawesi. The Wakatobi Marine National Park is one of the best sites in Indonesia for biodiversity and coral condition. As a "high profile" conservation area, Wakatobi is frequently in the spotlight and has received considerable support from NGO and government sources. However, this support has often been delivered through a variety of uncoordinated channels, resulting in the duplication of activities, or activities that received no or minimal funding. Similar to the Gili Matra Marine Recreational Park, Wakatobi Marine National Park management sits under the Directorate General of Forest Protection and Nature Conservation (PHKA), Ministry of Environment and Forestry (LHK). Given the area's unique biodiversity, since late 2002, TNC and WWF have partnered to assist the Wakatobi National Park authority to improve their management plan, zoning, and implementation of park management.

Aware of its importance in improving the sustainability and the management effectiveness of the area, MPAG focused its assistance on the formation of collaborative management (co-management) arrangements between the Wakatobi Marine National Park management, the District Government of Wakatobi, community groups, and other private parties involved in activities that impact biodiversity conservation, fisheries productivity and public welfare. In addition to the comanagement forum, MPAG also supported a Community-based Ecotourism Package Improvement initiative in the National Park. As a part of this effort, MPAG provided training to facilitate the preparation of a Tourism Management Plan (TMP) which included participants such as the Tourism Agency and Education Agency staff, dive operators, hoteliers, and experts from Indecon, the Indonesia Tourism Network. Fruit of this work, a five-year tourism development plan was developed that can be used as a handbook for all parties involved in developing and managing the National Park.

Although measurement against performance indicators showed that all of the targeted activities for the National Park were achieved, in reality the planned collaborative forum whereby stakeholders could meet regularly and exchange of ideas did not end up functioning as anticipated. Differing opinions as to how best to strengthen the forum clouded achievements in Wakatobi. The dual leadership of this area (the Ministry of Environment and Forestry and the Local Government of Wakatobi), as well as the remote location of offices (the Wakatobi Marine National Park central office is located in Bau-Bau, Buton Island), made coordination even more difficult.

Raja Ampat: 1,124,940 ha

During CTSP-I and in the early days of MPAG, the work site selected in Raja Ampat was in fact a network of Marine Protected Areas in the Bird's Head Seascape. However MPAG's work ended up focusing on the Raja Ampat Marine Protected Area, which is currently managed under the local Raja Ampat government. Based on the results of the National Marine Prioritization Workshop, the Bird's Head Seascape itself is ranked first among 12 Seascapes/Ecoregions in Indonesia, with 1,511 species of reef fishes and more than 600 species of hard corals (approximately 75 percent of the total species globally) making it the site with the richest diversity of coral reefs in the world. It is also a critical habitat for many endangered marine species such as green and hawksbill turtles, and Jamursba Medi serves as the nesting site for the largest leatherback turtle in the world.

Located in the Papua Marine Ecoregion, MPAG worked with the Raja Ampat MPA District Technical Management Unit (UPTD) through capacity building activities, operationalization of the UPTD Raja Ampat with a Local Government Public Service Agency (BLUD) system, and the creation of Regional Tourism Development Master Plan - District Tourism Development Plan documents (RIPPARDA). To increase UPTD staff and local community capacity, MPAG provided training on MPA management, the preparation of agreements and village regulations, leadership, office management (which was carried out jointly with Mazars Starling Resources), grant management, as well as SK3 training and certification.

MPAG recognized that sustainable financing represents one of the biggest challenges to long-term MPA management. Financial sustainability should be built on a portfolio of various sources of income that can in the long run cover all operating and management costs. In response to this, for the Raja Ampat MPA, MPAG proposed the adoption of a Local Government Public Service Agency (BLUD) - a regulatory status provided to a regional government work unit that provides the flexibility to raise funds from various sources, including donors, entrance fees, and other revenue sources. MPA managers can use these funds directly to finance management activities, which is not allowed elsewhere within the government system.

A multistakeholder process involving the government of Raja Ampat District, CI, TNC, Starling Resources, the Ministry of Home Affairs, and the Ministry of Finance identified requirements for establishing a BLUD including the development of mechanisms, organizational structure, business plan, staffing, governance systems, and minimum service standards. As this was the first ever BLUD to focus on marine conservation in Indonesia, this process took considerable time. To further support its development, a comparative study was conducted on the implementation of the Raganan Zoo BLUD in Jakarta, which served as a suitable comparison due to its adoption of an entrance fee.

Once all of the identified requirements were in place, the Raja Ampat Bupati signed Decree No. 61/2014 legalizing the establishment of the Raja Ampat marine conservation BLUD. Following consultation with the Ministry of Home Affairs, the Bupati of Raja Ampat also signed a further four additional Decrees relating to the BLUD, including:

1. Bupati Decree No. 16/2014 regarding BLUD grants receipt
2. Bupati Decree No. 17/2014 regarding BLUD governance guidelines
3. Bupati Decree No. 18/2014 regarding BLUD environmental services maintenance fees
4. Bupati Decree No. 19/2014 regarding BLUD remuneration

The tourism entrance fee represented one of the most important issues in the Raja Ampat BLUD. Tourism entrance fees had been collected and managed by the Tourism Office since 2008 with a set price of IDR 500,000/year for international tourists and IDR 250,000/year for domestic tourists, however, the establishment of the BLUD required a transfer of this authority from the Tourism Office to the BLUD. A series of meetings involving various Raja Ampat government agencies were conducted to discuss this transfer. As a result, the Raja Ampat Bupati finally issued Decree No. 18/2014, which set the new fees for local tourists/researchers at IDR 850,000/year for international tourists/researchers and IDR

425,000/year for domestic tourists/researchers. This Decree also appointed the BLUD as the institution authorized to collect and manage these fees cover operational/non-operational costs and provide funding for community welfare activities. According to the Decree, the minimum level of community welfare funding that can be allocated is IDR 1.5 billion per year.

In MPAG Year 2, USAID Indonesia staff visited Raja Ampat and during this visit, the Head of the Tourism Agency asked MPAG to support the development of a District Tourism Development Plan (RIPPARDA). As this tourism plan was strategically aligned with the Raja Ampat Management Plan and would ensure connectivity between the marine tourism industry and MPA management in the area, USAID Indonesia approved this request. Although the Raja Ampat government had actually developed a RIPPARDA in 2006, there was a need to revise it to ensure linkages with the new national tourism development plan and ensure that it accommodated the development of the Raja Ampat MPA. Support for the plan was funded jointly by the Raja Ampat government and MPAG. Currently, the final draft of the RIPPARDA is with the Tourism Agency, awaiting the next step in the legislation process.

E-KKP3K measurements indicate a 31 percent increase in management effectiveness in Raja Ampat over the life of project. Lessons learned from the development of the Raja Ampat MPA include the importance of ensuring the participation of all relevant stakeholders. The cultural characteristics of the communities in this region, where indigenous rights are still strongly respected, require the involvement of communities in all policy-making processes relating to the MPA. The barriers between work units are still clearly visible within Raja Ampat government. To address this lack of coordination, strong leadership from the Bupati is a must as the involvement of relevant work units is inevitable for policy-making.

Bali MPA Network: approximately 30,000 ha

Within the Lesser Sunda Marine Ecoregion, the Bali Marine Protected Area Network is located on the southern edge of the Coral Triangle and includes all marine areas within Bali Province, and has a very high conservation and marine tourism value. Complex ocean currents caused by the Indonesian through-flow between islands creates connectivity between the coral reefs found in these waters. These currents also cause local upwellings and vertical mixing of the water column, thereby reducing warm water surface temperatures which can create stress for coral reefs due to climate change. The area also supports various types of habitats, corals and fishes, and is important as a cetacean migration path, manta ray feeding ground and turtle nesting place.

Bali is a major tourist destination in Indonesia with its marine and coastal areas being primary tourist attractions. Bali has also been the target of conservation initiatives including the West Bali National Park, Nusa Penida Marine Park, Les village, Pemuteran village, and dolphin watching at Lovina, Tulamben, Amed and Perancak. As a small island ecosystem, Bali is vulnerable to threats of climate change, poverty, an unequal distribution of wealth and access to natural resources, and incoherent policies relating to food security, energy independence, and the sovereignty of the local culture. Compounding these threats is the unequal distribution of income, environmental degradation due to growth in coastal development, and conflict between villages and districts around marine resource utilization. The interrelated nature of these issues means that they cannot be resolved by individual districts or villages alone. The Bali MPA Network of MPAs was created to provide a discussion forum for these various interests as it could allow Bali's small island ecosystem covering land, sea and air to be managed on a "one island, one management" principle.

The Bali MPA Network consists of 10 MPAs and prospective MPAs, namely:

- West Bali National Park
- Nature Park (TWA) Buyan-Tamblingan
- Forest Park (Tahura) Ngurah Rai
- Buleleng MPA
- Karangasem MPA (prospective)
- Nusa Penida MPA
- Badung MPA (prospective)
- Jembrana MPA
- Denpasar MPA (prospective)
- Danau Batur Bangli MPA (prospective).

The work of the Bali MPA Network is divided into five main functions; policy, scientific research, spatial planning, capacity building, and funding. The goals of this Network are to:

- serve as a data and information center (resource center);
- create sustainable economic activities;
- improve human resources;
- prepare MPA-related policies;
- build MPA-related institutional systems; and
- facilitate sustainable financing for MPAs.

The Network will also develop strategies and/or SOPs relating to data collection, mechanisms for the distribution and utilization of data and information from a variety of sources, and data ownership.

MPAG played a key role in the development and implementation of the Bali MPA Network blueprint, as well as in improving the capacity of managers, conducting community outreach, and supporting the

development of the Bali Provincial Marine Spatial Plan for Coastal Areas and Small Islands (RZWP3K) which included the Bali MPA Network. MPAG also supported the establishment of the Jembrana, Karangasem and Buleleng MPAs.

The Bali MPA Network blueprint was successfully completed and ratified by 13 government agencies, including: two national agencies (Natural Resources Conservation Agency and West Bali National Park Conservation Agency); two provincial government institutions (Marine and Fisheries Agency and Forestry Agency); and nine Marine and Fisheries Agencies from nine districts/ cities. Following this approval, the blueprint was officially launched at the "CTI-CFF Meeting" in Buleleng, on June 9, 2014 which was attended by Bupatis from coastal areas across Indonesia, the Minister of Home Affairs, and the Minister of Marine Affairs and Fisheries.

MPAG provided support for MPA 101 training and the preparation of zoning plans for the Buleleng, Badung and Jembrana MPAs. The project also facilitated trainings on patrolling, community surveillance, and Resource Use Monitoring (RUM) in Banyuwangi which was attended by Marine and Fisheries Agency representatives from Buleleng, Badung, Tabanan, Jembrana, Gianyar, Klungkung, Denpasar and Karangasem, as well as West Bali National Park officers, representatives from fishers' groups and NGOs.

MPAG also collaborated with the local organization Sloka to produce the Nyegara Gunung website (<http://www.nyegaragunung.net>), which was designed to communicate efforts and results of the process of forming the Bali MPA Network. The website was also linked with social media such as Facebook (Nyegara Gunung) and Twitter (@nyegaragunung). My MPAG's completion, the Bali MPA Network has published 39 articles through this website.

MPAG recognized the importance of including the Bali MPA Network in the management plan for the Bali province Marine Spatial Plan for Coastal Areas and Small Islands (Bali Province RZWP3K). A final draft of this plan is being developed as of this writing.

MPAG also supported the designation of local MPAs in Jembrana, Buleleng and Karangasem. Early on in the project, MPAG had supported the designation of a local MPA in Badung, but the land reclamation plans in Benoa Bay and the dynamic political situation in the district resulted in postponement of these plans. Currently, the Jembrana MPA has been designated via Decree No. 778/DKPK/2013, which was signed by the Jembrana Bupati on December 30, 2013. The Buleleng MPA has also been designated, via Decree No. 523/630/HK/2011. However, at the close of MPAG's operation, the Karangasem MPA had not yet been designated.

As the E-KKP3K is designed to measure a single area (versus a MPA network), it was not possible to assess the management effectiveness of the Bali MPA Network as a whole. However, each of the individual MPAs within the network were measured and have experienced improvements in management effectiveness with the Jembrana MPA having a 26 percent increase in management effectiveness, Buleleng MPA having a 35 percent increase, and the prospective Karangasem MPA having a 18 percent increase in management effectiveness over the life of project.

Banda Islands MPA Network: 53,000 ha

Located in the Banda Sea Marine Ecoregion, the Banda Islands MPA Network consists of three proposed MPAs on the islands of Rhun, Ay and Hatta which were added as new MPAG field sites in Year 3. From January to March 2014, MPAG carried out socialization activities on basic principles underpinning the establishment of a Locally Managed Marine Area (LMMA) for the Rhun Island community.

In an effort to develop a Banda Islands MPA Network, MPAG facilitated a series of public consultations with the communities of the Hatta, Ay and Rhun Islands on the development of LMMAs. Community conservation groups have now been established on the three islands, and a draft traditional law on LMMAs has been developed. Local communities have been mapping the outer boundaries of the LMMAs, “*Sasi*” areas (a traditional and community defined restricted/limited harvesting zone or traditional fisheries zone) and no-take areas.

To support the establishment of the Network, MPAG has worked with the communities of Ay and Rhun Islands to determine the outer boundaries of their local MPAs by providing assistance with the drafting of a zoning system plan, the development of a community conservation team, and the drafting of village regulations on natural resources management within the MPAs. In collaboration with the Banda Marine Recreational Park Management Unit, the CTC conducted reef health monitoring in the area from November 23-27, 2014. The team responsible for this work consisted of two coral and two fish surveyors, who carried out the monitoring across six selected sites using video surveying methods.

On December 1, 2014 the community on Ay Island declared its own community based MPA and zoning system via village regulation, to be supported by a community conservation team. The zoning system consists of core, Sasi, traditional fisheries, marine tourism and sustainable fisheries zones. The declaration was launched with a traditional ceremony led by the head of the community of Ay Island. The total area of Ay Island MPA is about approximately hectares.

On December 20, 2014 the Hatta Island MPA and zoning system was also declared by the community via village regulation and was launched with a traditional ceremony. A community conservation team will manage the approximately 5,000 hectares Hatta Island MPA which consists of core, Sasi, traditional fisheries and sustainable fisheries zones.

At the end of January 2015, together with Rhun MPA, CTC, the MPAG implementing partner in Banda submitted a proposal for a joint Ay-Rhun MPA to the Maluku Tengah District Government covering total area of 38,000 hectares. By July 7, 2015, the three LMMAs should be connected and aligned with the existing Banda Sea National MPA to create the Banda Islands MPA Network.

Additional Sites

As part of support provided to the Government of Indonesia, in Year 3 MPAG expanded the scope of its work to include seven new work sites, focusing on the designation of new MPAs and improving the management effectiveness of existing MPAs. Many of these sites are located in the Lesser Sunda Marine Ecoregion. This work included supporting the establishment of the first ever provincial MPA in Indonesia in Southeast Sulawesi Province. MPAG provided technical assistance by providing technical expertise to Marine and Fisheries Agencies and other relevant government work units at both the district and provincial level. These new sites include:

North Minahasa District - North Sulawesi Province: 32,217 ha

Located in Sulawesi Marine Ecoregion, the North Minahas MPA was declared in 2014, and the area was added to the national tally of MPA hectares. Seeing this work, the government of the adjacent district of Sitaro requested similar technical support from the MPAG consortium for the establishment of their own new MPA. MPAG provided support for ecological, socio-economic, and fisheries data collection in the district from December 2-7, 2014. The results of this work will be incorporated into documentation to support the Sitaro District government's MPA.

Muna District - Southeast Sulawesi Province: 76,417 ha

The Head of the Muna District Marine and Fisheries Agency located in the Banda Sea Marine Ecoregion requested MPAG technical support for MPA establishment in March 2014. In response, MPAG provided a grant to Puslitbang KP3K, University of Hasanuddin to provide expertise for the preparation of the necessary data/documents. Four divers were later mobilized to collect better quality ecological data to support the identification of the marine conservation area and develop local government MPA management capacities.

While developing the MPA, there was some confusion as to whether the MPA management authority resided with the district government or had been shifted to the provincial level as stipulated by the Local Government Law 23/2014. Finally, in December 2014, a Bupati Decree was issued officially declaring the establishment of the new MPA in Muna District.

Konawe District, South Konawe District and City of Kendari - Southeast Sulawesi Province: 10,810 ha

In response to requests, MPAG supported the declaration of the first provincial level MPA in Indonesia covering two districts and one city in the Banda Sea Marine Protected Area. The University of Hasanuddin was also engaged to support the process. The Governor of Southeast Sulawesi has issued a decree on the establishment of the MPA, and the development of management and zoning plans is now underway with funding from local government budgets. The design of the management unit has proven to be a complex matter. As a provincial level MPA, MPA management authority lies with the provincial Marine and Fisheries Agency, but the involvement of the district level governments is essential to ensure the MPA's sustainability. MPAG facilitated a meeting attended by the Director of KKJI, Head of the provincial Dinas, University of Hasanuddin and a representative from the Ministry of Home Affairs in Jakarta to discuss how the government can ensure and cultivate the active participation of local jurisdictions in Provincial level MPAs.

Sumbawa - West Nusa Tenggara Province: 70,000 ha

MPAG provided technical support to the District of Sumbawa government located in the Lesser Sunda Marine Ecoregion to declare a new MPA at Lunyuk. Thanks to high level support and cooperation from the local government, this MPA declaration process happened relatively quickly. MPAG received the

initial request in March 2014, technical support was mobilized by June, and the Bupati issued the decree by December of the same year.

East Lombok District - West Nusa Tenggara: 10,000 ha

In East Lombok also located in the Lesser Sunda Marine Ecoregion, MPAG assisted the local government in the development of new management and zoning plans for the Gili Sulat and Gili Lawang MPAs, including a spatial analysis to ensure connectivity between the management and zoning plans. MPAG also facilitated a series of consultations and workshop with stakeholders, including a public consultation of some 40 participants to finalize the management and zoning plans on October 30, 2014. These activities will underpin the revision of the prevailing Bupati Decree.

West Lombok - West Nusa Tenggara Province: 21,556 ha

In West Lombok, a 20 participants took part in a public consultation to finalize the management and zoning plans for the Gita Nada Marine Recreational Park on October 31, 2014. This potential MPA is also located in the Lesser Sunda Marine Ecoregion.

West Sumbawa - West Nusa Tenggara Province: 11,574 ha

On November 25, 2014, 20 stakeholders participated in a public consultation to finalize the management and zoning and plans for the Keramat MPA, Bedil Temudong (Kabete) in West Sumbawa in the Lesser Sunda Marine Ecoregion. The final drafts plans have been submitted to the West Sumbawa District legal bureau for review. Meanwhile, on November 23, 2014, 20 stakeholders participated in a public consultation to finalize the management and zoning plans for the Gili Balu and Tatar Sepang MPAs. These final drafts have been submitted to the West Sumbawa District legal bureau for review.

Other Areas

In addition to the above areas, MPAG also initiated the establishment of a new MPA and conducted some of the required initial work in West Sumba in East Nusa Tenggara Province and Natuna Island.

Located in the Lesser Sunda Marine Ecoregion, MPAG facilitated the formal MPA initiation process including a stakeholder workshop to determine boundary coordinates for the proposed MPA in West Sumba on December 17-18, 2014. West Sumba stakeholders endorsed the initiation of the MPA and forwarded this endorsement to officials in West Sumba district. The Bupati will either issue a decree to approve the MPA or will request further guidance from the provincial government and/or MMAF.

Meanwhile, in Natuna, located in the Sunda Shelf Marine Ecoregion, a socio-economic survey on coastal and marine resources use was conducted from October 13-28, 2014 covering the sub districts of Bunguran Barat, Serasan Timur and Serasan. This survey is a key initial step for any eventual MPA establishment. Some 200 respondents were surveyed including coastal fishers, fish cage culture farmers, seaweed farmers and women's fish processing groups. The survey team consisted of representatives from BPSPL (Center for the Management of Coastal and Marine Resources) Padang-Ministry of Marine Affairs and Fisheries, Anambas Islands MRP work unit, Natuna Marine and Fisheries Agency and CI.

Opportunities and Challenges

The opportunities and challenges encountered by MPAG during the three years of its operation can be classified into three topics:

- Internal MPAG operations, including those relating to the operational systems of the five NGO consortium members, RPO-MPAG coordination, and working according to the agreed workplan and specific budget;
- Coordination with MMAF; and
- Working with local governments and local institutions.

Internal MPAG Opportunities and Challenges

MPAG implemented activities at specific sites. In many cases, MPAG consortium member NGOs had been working in these sites with funding from other sources. When these sites came under the MPAG annual workplan, activities and targets proposed for the site were often different from those funded by other sources. In these cases, MPAG funding helped provide a more holistic approach to MPA management. MPAG, through its consortium, also initiated activities at sites that had never received NGO assistance. At the national level, MPAG primarily worked with MMAF on new activities that had no other source of funding beyond MPAG, bringing into question the sustainability of these activities post project.

MPAG was very pleased to see that the NGO consortium members are committed to the sustainability of their programming and activities, and by MPAG's conclusion, new funding had been secured for sites, thus ensuring the continuity of MPAG's work. In Southeast Sulawesi and West Nusa Tenggara, for example, WWF-Indonesia has committed to continue to implement MPA management effectiveness activities post MPAG while WCS will continue their support to five districts in West Nusa Tenggara using other funding sources. MPAG Consortium NGOs also recognize the importance of collaboration and put high value on relationships with government private sector, and community counterparts. These relationships facilitated MPAG activities at all levels of government.

While there were many strengths among the MPAG NGO Consortium, as they operated across several sites this sometimes hampered program efficiency. Exchanging resources between different NGOs or work sites was sometimes difficult to facilitate. For example, when SOPs for joint patrolling developed for one site should have been adaptable to other sites with only minimal adjustment, each NGO often wanted to develop their own work. In many instances, MPAG funding represented only a part of a larger and long-term NGO workplan at a particular site. As such, it was sometimes difficult to highlight MPAG specific achievement. In many instances, it was easier for MPAG to report out and document achievements on ministerial level work as these were relatively new activities that were solely funded by MPAG.

Lastly, the MPAG consortium NGOs often had their own particular institutional strategy and approach in place, which differed from one NGO to another. In several cases these approaches were not compatible with the MPAG workplan which required certain activities to be completed within certain timeframes, and, MPAG often had to customize its workplan in accordance with NGO consortium workplans. For example, when the Southeast Sulawesi provincial government asked MPAG to send an expert to help them designate a new MPA in Muna and Kendari, USAID approved this request as an additional activity. However, as MPAG operations were ending in December 2014, it could only commit to providing support for six months, with the designation of the MPA the expected output. WWF-Indonesia as the NGO working at this site was not able to provide support to continue this program as they had different approach to supporting local governments, and MPAG ended up providing grants to local universities to carry out this work.

Collaboration with the Ministry of Marine Affairs and Fisheries

Challenges encountered in MPAG's work with partners at the ministerial level were often related to scheduling and work rhythms as well as differences in work priorities. The MMAF work units have their own workplans which include outputs, KPIs, and an allocated budget. The annual budget burn rate is included as a KPI, meaning that MPAG partners were provided with an incentive to implement all activities set out in their program budgets and absorb as much of the allocated budget as possible. This situation hampered joint activity planning as government counterparts inevitably prioritized their own activities to achieve their targets.

A change in team leadership sometimes brought about positive outcomes. For example, when newly appointed senior management staff had prior knowledge of MPAG and understood its work mechanisms, this would facilitate communication between MPAG and that staff thereby speeding up the implementation of the agreed workplan and potentially contributing to the long-term sustainability of the program. In essence, when the MPAG work program aligned with the government workplan, it was guaranteed that the program would run as expected. And when this happened, we can also say that MPAG activities supported the achievement of government targets, in terms of both quality and output.

With regard to “new” activities, the time required for their adoption was longer as such activities would be budgeted into MMAF’s workplan for in the following fiscal year. If an activity did not align with government KPIs, then MPAG had to go to great effort to demonstrate its strategic and instrumental value for marine conservation. In such cases, adoption by MMAF could take more than one fiscal year.

MPAG work at the national level focused on the development of Ministerial Decrees. As the development of these Decrees was also a ministerial target, the KKJI Directorate identified the target of issuing a Ministerial Decree for a certain fiscal year, and supported this with a budget allocation so that significant effort was put into the production of this regulation over the year. In contrast, when MPAG tried to introduce the concept of a marine conservation Trust Fund in Indonesia to fund MPA related activities, as there was no specific mention of the creation of a sustainable financing mechanism in the Directorate of KKJI's annual workplan, this work did not move forward. While KKJI admitted that such a mechanism was strategic and important, only minimal shared generic funding was allocated to finance meetings. MPAG provided technical input and support to the Sustainable Financing Working Group meetings, however, by the conclusion of MPAG's operation, the government had still not taken any steps towards the establishment of the Trust Fund.

Working with Local Governments and Local Institutions

MPAG's main counterparts at the local government level were Marine and Fisheries Agencies. Within these agencies, there was competition for attention from different sectors, with marine issues often not considered a high priority. Local Marine and Fisheries Agencies were often not regarded as important work units, and were not valued by local leaders, and consequently, MPAs were often neglected in local government annual workplans. Together with Marine and Fisheries Agencies, MPAG often had to convince local leaders of the importance of the fisheries sector and the economic potential of effectively managed MPAs.

The political processes and dynamics of local government often resulted frequent changes in government and new leaders which sometimes had significant impact on MPAG's work on the development of regulations and policy. Bupatis, as the head of government at the district level, or governors at the provincial level, often depended heavily on input and advice from their confidants or subordinates

including the heads of district agencies. In regions which were developing new revenue sources, MPA management was often considered a priority in contrast to regions where MPAs were already generating some revenue through the tourism industry. To address this challenge, MPAG made efforts to communicate directly with local leaders and to mobilize experts or practitioners to provide technical assistance to local governments. Engaging the participation of local universities was sometimes useful in resolving communication breakdowns with local policy makers and often facilitated the issuance of regulations or policy on effective MPA management.

Success Stories

The success stories documented below describe MPAG activities over its three years of operation. They reflect activities that have contributed greatly to the achievement of the Indonesian government's commitments to marine conservation. Most of the stories focus on MPAG's efforts in providing technical support to the government, which in turn led to first ever such outputs by the Indonesian government. These success stories are taken from MPAG's experience in working with partners at both the national and district levels.

Secondment - An Effective Approach to Government Support

Technical support to government can be provided in the form of senior expert assistance to help the government with policy formulation. Over time, as these experts work full-time in a government office and together with ministry staff, a high level of trust can be built through their everyday intensive interaction with staff members. This trust can facilitate communication and collaboration for the implementation of work programs. For a secondment to achieve effective results, it requires:

- (a) an expressed need for expert support;
- (b) a request from the government for expert support; and
- (c) a scope of work designed in such a way as to allow flexibility and a focus on activities that cannot be carried out by the government staff due to time constraints or limited technical capacity.

By following these criteria, MPAG was able to prioritize the need for secondment services and deliver the effective technical assistance. This support was greatly appreciated by the government and specifically, senior management at the Directorate of KKJI, Directorate of SDI and Puslat BPSDM and became the spearhead for the implementation of many MPAG partner programs. The government often did not count with certain experts, such as IT specialists, due to rigid government recruitment processes. Even if such experts were present, they sometimes lacked the necessary practical experience. MPAG's secondment of highly technical experts also produced some excellent outputs.

MPAG's ability to quickly identify and mobilize these secondments was much appreciated. For example, during MPAG's final quarter, a highly qualified senior policy expert seconded to the Directorate of KKJI to provide policy development support was asked to assist to COREMAP CTI project as his technical expertise was deemed indispensable. Likewise, the Directorate of SDI asked MPAG to extend the tenure of the secondee who had played a key role in the completion of FMA management plans across Indonesia. While MPAG has closed, this secondee is continuing his role as a part of the National EAFM Working Group. Meanwhile, the IT expert seconded to the Directorate of KKJI provided excellent capacity building training. The Directorate of KKJI now has a pool of staff in place who are able to operate and maintain its website. The mid-term evaluation team concluded that MPAG's secondment program was a very effective method of providing technical support to the government.

SK3 - The First Systematic Approach to Capacity Development for Marine Conservation Human Resources

The management of MPAs by competent human resources is one of the government's sub-targets. Previously, training targets were focused on the number of people trained with the training delivered by a range of different agencies, projects and NGOs, using a variety of modules, and without any attempt to standardize the competences of trainers or participants. There were no post-training plans provided to participants. Therefore, while thousands had taken part in training programs, the absence of government set standards made it difficult to measure the effectiveness and impact of these trainings. In response, MPAG introduced a more systematic approach to capacity building through the implementation of a government led competency-based training using government infrastructure. As a first step, MPAG

reviewed existing regulations, which revealed that the government had a National Training System in place which could be used for the delivery of Specific Competence Standards for Work (SK3) training.

At the end of its three years of operation, MPAG had supported the development of the infrastructure required for the delivery of this competency-based training. This work included the implementation of the first conservation-based training in Indonesia to adopt procedures stipulated by the National Training System. Participants in the first SK3 training were primarily representatives from local MPAs, representing an important step forward towards the government's goal of more effective MPA management through capacity building for MPA management staff.

There are 14 different competencies required by MPA managers that have been identified, with some of the modules and curricula based on these competencies already developed. A trainer and assessor network has also been established, along with an independent certification body. Government staff involvement in the development of this training has been an invaluable experience, and it is hoped that their participation in the development of SK3 will spur the replication of similar trainings to support other human resource capacity building efforts. In fact, a similar approach has already been replicated in the fisheries sector through the implementation SK3 on EAFM (Ecosystem Approach for Fisheries Management) in Indonesia. It is also hoped that SK3 type trainings will ultimately allow the conservation sector to run more systematically and efficiently in the future.

EKKP3K – Measurement and Reference for Effective MPA Management

Achieving the effective management of MPAs has long been a goal for the Indonesian government, NGOs and bilateral agencies, however, the concept had never been carefully defined, and more importantly had never been subject to standard measurement. As a result, it was often hard to assess whether the management of an MPA was truly effective or not. In the meanwhile, some NGOs already had measurement methods in place and used these when measuring the management effectiveness of their respective sites. However, this made it difficult to compare the management effectiveness of an MPA with another, because of the use of different measurement methods.

MPAG encouraged the government to lead the development of a standard tool to measure the management effectiveness of MPAs, and the EKKP3K is the first instrument developed and implemented by the government for the measurement of MPA management effectiveness in Indonesia. This tool was developed through a review of existing MPA management effectiveness tools used across the country and taking the best aspects of each of these to develop a standardized tool. With the introduction of the EKKP3K, the government can now know the status of MPA management effectiveness in Indonesia and compare management effectiveness between sites. It is hoped that the EKKP3K will also enable direct more targeted support to improve MPA management effectiveness at specific sites. MPAG used the EKKP3K to assess the effectiveness of its interventions to its 18 MPA sites. The EKKP3K has also been used as a reference for MPA managers who want to improve the management of their respective MPAs. The measurement tool, which designates rankings using a color and percentage scheme, provides information about what it takes to properly manage an MPA, providing MPA managers with clear targets and while providing them with information on what steps need to be taken to improve their MPA management effectiveness.

Based on the EKKP3K and to provide MPA managers with clear directions and guidance in their efforts to improve the management of their respective MPAs, MPAG also supported the publication of nine supplements to technical guidelines for MPA managers to help them to achieve the ideal management conditions described in the EKKP3K.

DSS - Government Management and Sharing of Marine Conservation Data

There is a lack of knowledge about the existence or completeness of data on marine conservation in Indonesia. There are also a wide variety of entities collecting and managing such data, and it is published only sporadically through a variety of media channels. Marine conservation-based research carried out by university fisheries faculties often focuses at a level that is distant from what is going on in the field. There is a lack of connectivity between research and practice, and the research carried out does not always reflect the needs of practitioners. To date, very few universities have contributed to the development of marine conservation or supported the improvement of MPA management.

In response to this reality, MPAG encouraged the government to gather data and establish a marine conservation database that would be managed by the government itself. The development of this database was supported by MPAG seconded staff over the three years of MPAG's operation. As a result, a relatively complete database on marine conservation is now in place under the management of KKJI. This database includes a user interface located on the KKJI website <http://www.kkji.kp3k.kkp.go.id> for those wishing to access its wealth of data, relevant regulations, and research studies. During MPAG Year 1, the preparation and improvement of a database structure that would allow for the easy upload of new data was a priority. During MPAG Year 2, the KKJI website was upgraded and resulted in an increase in internet traffic with the site receiving some 1.6 million visitors over two years. This website will continue to be managed by the government and is expected to become a stable resource for marine conservation stakeholders including regional Marine and Fisheries Agencies, university students and other institutions.

EAFM - A New Approach to Effective FMA Management

As part of the Coral Triangle Initiative at the regional level, the Indonesian government established an EAFM fisheries stakeholders working group. MPAG fully supported the operation of this group, and provided capacity building expertise to the Directorate of SDI through the secondment of an EAFM expert. Through this secondment, the government adopted EAFM for the management of FMAs in Indonesia, along with EAFM measurement indicators. Outputs produced by the working group were the first of its kind in Indonesia, and were subsequently adopted in the preparation of management plans for 11 FMAs in Indonesia and this work is continuing post MPAG. A database has been developed to compile results of these measurements from various places. Realizing the scope of this work, the working group chose to develop a network of universities to implement the use of EAFM indicators. There is a long road ahead however, especially with regard to the implementation of new these new FMA management plans, but at least there has been an initial consensus reached on how EAFM can be adopted, such that conservation, institutional, and socioeconomic aspects can be incorporated in the management of FMAs across Indonesia.

Leveraged Funds

USAID funding for MPAG helped MPAG consortium members leverage funds from other donors from a variety of sources including individuals. Foundations and corporations. An estimated \$10,000,000 in marine conservation funds for Indonesia were leveraged by the MPAG NGO consortium.

Progress Measured Against Indicators Specified in the Performance Monitoring Plan (PMP)

MPAG has developed a PMP to assist in planning, assessing and reporting on progress towards the project's objectives. The draft PMP was developed in consultation with consortium members and was approved by USAID Indonesia.

PERFORMANCE INDICATOR REFERENCE SHEET							
Indicator 1.1	Number of hectares of biological significance and/or natural resources under improved natural resource management as a result of USG assistance						
Definition	<p>An area is considered under "improved management" when any one of the following occurs: (i) Area designation by government/local governments; (ii) Completion of management and zoning plan; (iii) Establishment of management unit/co-management and infrastructure; (iv) Development of sustainable financing mechanism; (v) Human and institutional capacity is developed; (vi) Management actions are implemented; (vii) Monitoring and evaluation is established; or (viii) Adaptive management is demonstrated.</p> <p>Number of hectares under improved natural resources management will consist of newly established MPA sites (West Kei Kecil and Berau) and improved management effectiveness in existing sites (Anambas, Nusa Penida, Raja Ampat, Savu Sea, Wakatobi, and Gili Matra).</p>						
Unit of measure	Number of hectares						
Baseline Information	Anambas (1,262,686 ha), Nusa Penida (20,057 ha), Savu Sea (3,521,130 ha), Gili Matra (2,954 ha), Wakatobi (1,390,000 ha), Raja Ampat (1,302,570 ha)						
Disaggregated by	Site						
Data verification	Ministry/Bupati Decree on MPAs, Zoning Plan for Coastal Areas and Small Islands (RZWP3K)						
Frequency and schedule of data collection	Annual updates						
Lead	MPAG Consortiums						
	YEAR 1 (HA)		YEAR 2 (HA)		YEAR 3 (HA)		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
Bird's Head Seascape MPA Network (Raja Ampat)	1,302,570	1,302,570	1,302,570	1,302,570	1,302,570	1,302,570	Raja Ampat Bupati Decree No. 66/2007 on Designated Raja Ampat Marine Protected Area
Bali MPA Network	73,000	73,000	73,000	73,000	73,000	73,000	Covered Nusa Penida MPA, Buleleng MPA, and Jembrana MPA
Savu Sea Marine National Park	3,521,130	3,521,130	3,521,130	3,521,130	3,521,130	3,355,352	Gazetted by Ministerial Decree on January 27, 2014 (KepMen KP No. 5/KEPMEN-KP/2014)
Nusa Penida MPA	20,057	20,057	20,057	20,057	20,057	20,057	<i>KepMen-KP No. 24/KEPMEN-KP/2014 Tentang Kawasan Konservasi Perairan Nusa Penida Kabupaten</i>

PERFORMANCE INDICATOR REFERENCE SHEET

							<i>Klungkung di Provinsi Bali</i>
West Kecil MPA	150,000	150,000	150,000	150,000	150,000	150,000	Bupati Decree No. 162/2012 on Kei MPA
Berau MPA	305,000	305,000	305,000	285,266	305,000	285,266	Berau Bupati Decree No. 516/2013 on Berau Coastal Park
Anambas Marine Recreational Park	1,262,686	1,262,686	1,262,686	1,262,686	1,262,686	1,262,686	Ministry of Marine Affairs and Fisheries Decree No. KEP.35/MEN/2011 on Designated Anambas National Marine Recreational Park
Wakatobi National Park	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	1,390,000	MoF Decree No. 7651/Kpts-II/2002 on Enactment of Wakatobi Marine National Park
Gili Matra Marine Recreational Park	2,954	2,954	2,954	2,954	2,954	2,954	Ministry of Ministry of Marine Affairs and Fisheries Decree No. KEP. 67/MEN/2009 on Gili Ayer, Gili Meno & Gili Trawangan MPA
North Minahasa MPA					-	32,000	North Minahasa Bupati Decree No. 180/2014
Southeast Sulawesi MPA					-	10,810	Southeast Sulawesi Governor Decree No. 324 on June 18, 2014 on designated Southeast Sulawesi MPA
West Sumbawa Barat MPA	-	-	-	-	-	11,574	To increase management effectiveness level
Sumbawa MPA	-	-	-	-	-	70,000	Establishment of Lunyuk MPA (70.000 ha) – Sumbawa Bupati Decree No. 1212/2014.
East Lombok MPA	-	-	-	-	-	10,000	To increase management effectiveness level
Central Lombok Tengah MPA	-	-	-	-	-	22,940	To increase management effectiveness level
West Lombok MPA	-	-	-	-	-	21,556	To increase management effectiveness level
Muna MPA	-	-	-	-	-	76,417	Establishment of Muna MPA (76,417 ha), Muna Bupati Decree No.308 - 2014
Total	8,027,397	8,027,397	8,027,397	8,007,663	8,027,397	8,097,182	Over the life of project, some jurisdictions reduced the size of MPAs, notably Berau and Savu Sea. By the end of project, MPAG had worked in 16 MPAs covering a total area of 7.5 million ha.

Indicator 1.2	Number of people receiving USG-supported training in natural resource management and/or biodiversity conservation.						
Definition	The number of individuals participating in learning activities intended to teach or impart knowledge and information about natural resources management and biodiversity conservation with designated instructors, mentors or lead persons, learning objectives, and outcomes, conducted fulltime or intermittently. The training may consist of transfer of knowledge, skills, or attitude through structured learning and follow-up activities, or through less structured means to solve problems or fill identified performance gaps. Training may consist of long-term academic degree programs, short or long-term non-degree technical courses in academic or in other settings, non-academic seminars, workshops, on-the-job learning experiences, observational study tours, or distance learning exercises or interventions.						
Unit of measure	Number of people participating						
Baseline Information	N/A						
Disaggregated by	Gender						
Data verification	Sign-up list of participants, photos						
Frequency and schedule of data collection	Quarterly updates						
Lead	MPAG Consortium						
	YEAR 1		YEAR 2		YEAR 3		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
# of people who received training	260	644	290	424	310	2268	Number of people receiving MPA related trainings is above the target. These trainings have been conducted at site level with different focuses, such as basic MPA, MPA management planning, sustainable tourism, resource use monitoring, reef health monitoring, mapping, and sustainable fisheries.
Total	260	644	290	424	310	2268	The number of participants receiving MPA related trainings is higher than anticipated due to the popularity of the trainings, unanticipated requests for trainings, and a variety of training topics.

Custom Indicators

PERFORMANCE INDICATOR REFERENCE SHEET INSTITUTIONAL IMPROVEMENT	
Indicator 2.1	Number of decrees and guidelines on MPA management developed
Definition	Decrees and guidelines will be related to the development of national MPA system. Decrees will be released by the Minister of Ministry of Marine Affairs and Fisheries, Head of BPSDM, or DG KP3K, while the guidelines may be signed by the Director of KKJI. Thematic decrees and guidelines may relate to MPA Management Effectiveness, MPA Networks, MPA co-management, standards for special competence (SKK), establishment of working groups on human resource development, data collection on MPA training, or competency-based requirements for MPA managers. In addition, the management effectiveness status of MPAs in MPAG sites will be identified every year based on MPA management effectiveness protocols (E-MPA).
Unit of measure	Decrees and reports
Baseline Information	PP 60/2007 on Conservation of Fishery Resources, Ministerial Decree (Permen) 2/2009 on Steps Towards MPA Establishment, Permen 30/2010 on Management Plan and Zoning Plan of MPAs
Disaggregated by	Theme
Data verification	<u>Ministerial Decrees</u> on MPA Network, co-management, and SKK, <u>Head of BPSDM Decrees</u> on working group on human resource development and data collection of MPA training, <u>DG KP3K Decrees</u> on MPA Management Effectiveness and competency-based requirement for MPA managers and, <u>Ministry of Marine Affairs and Fisheries guidelines</u> on MPA management based on MPA Management Effectiveness (ME).
Frequency and schedule of data collection	Annual updates
Lead	WWF, TNC, CI, CTC, WCS

	YEAR 1		YEAR 2		YEAR 3		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
# of Ministerial Decrees	1	1	2	2			- Ministerial Regulation on MPA Networks is issued in Year 3 - Ministerial Decree No. 9 2013 on SK3 - Ministerial Regulation on Napoleon Wrasse Utilization in Year 2 (2013)
# of Head of BPSDM Decrees	2	1					Head of BPSDM Decree No. Kep.11/BPSDMKP/2013 on human resources development working group
# of DG KP3K Decrees	1	1	1	1			- DG KP3K Decree on E-KKP3K - DG KP3K Decree on SK3 finished in Year 3
# of MMAF guidelines			1	8			E-KKP3K supplements issued with seven guidelines as supplements completed
# of Governor /Regent Decrees				1		4	- Jembrana Bupati Decree No. 778/2013 - Southeast Sulawesi Governor Decree No. 324/2014 o - North Minahasa Bupati Decree No. 180/2014 - Sumbawa Bupati Decree No. 1212/2014 - Muna Bupati Decree No. 308/2014
Total	4	3	4	12		4	The Year 2 Actual is higher than anticipated as requested supplements for EKKP3K were not anticipated at the beginning of the project.

PERFORMANCE INDICATOR REFERENCE SHEET							
CAPACITY BUILDING TRAINING							
Indicator 2.2	National and local capacity for sustainable MPA management strengthened						
Definition	<p>Capacity Development Training is defined as a series of efforts to provide sufficient competency of human resources in managing MPAs. These include:</p> <ul style="list-style-type: none"> • Developing curriculum based on minimum core competencies for effective MPA managers and practitioners; • Establishing a Training Information Center where information on MPA trainings conducted by various institutions is collected (including number of people trained, trainers/facilitators, modules etc.); • Providing support to conduct study on functional positions for conservation; • Delivering training on MPAs at the site level (e.g., MPA 101); and • Training module on EAFM indicators. 						
Unit of measure	Curricula/modules and reports						
Baseline Information	Draft training modules, annual BPSDM training plan						
Disaggregated by	Theme						
Data verification	Curricula and modules collection, data set training documents, study report on functional positions for conservation, MPA training reports						
Frequency and schedule of data collection	Quarterly updates						
Lead	CI, CTC, WWF						
	YEAR 1		YEAR 2		YEAR 3		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
# of curricula and modules based on minimum core competencies developed	3	3					The three training modules, developed using NOAA's training materials as a key resource, are: Basics of MPA Management; MPA Management Planning; and Sustainable Fisheries Management in MPAs. The first two modules combined into one SK3 called competence standard for MPA management planning. Currently, two SK3s are being developed: Sustainable Fisheries and Monitoring and Evaluation.
# of training information systems developed	1	1					Training information system has been developed and presented to Human Resources Development working group. This system will be synchronized with webdata in the Directorate of KKJI.

# of studies on functional positions for conservation	1	1					<p>The study concludes six types of functional position for conservation: (i) conservation planner, skilled level; (ii) conservation planner, expert level; (iii) controller and evaluator of conservation, skilled level; (iv) controller and evaluator of conservation, expert level; (v) community development incentive, expert level.</p> <p>These functional positions are consistent with the priority competences of MPA managers recommended by the MPA CD working group, i.e.: (i) General Personal Work Skills; (ii) Protected Areas Policies, Planning and Management; (iii) Sustainable Development and Communities; (iv) Conservation Management of Ecosystems, Habitats and Species; (v) Natural Resources Assessment; (vi) Socio-Economic and Cultural Assessment</p>
# of MPA-related trainings delivered	10	16	10	18	6	8	<p>Total trainings delivered are above target and conducted at MPAG sites with different focuses: basic MPA, MPA management planning, resource use monitoring, reef health monitoring, mapping, and sustainable fisheries. One National training on Sustainable Tourism and SK3 MPA Management Planning trainings and certification completed</p>
# of training modules on EAFM indicators	1	1					
# of MPA site-level MPA trainings						11	<ul style="list-style-type: none"> - One training on Sustainable Fisheries at Meosbekwan village and one training on Sustainable Tourism conducted in Dohrekar village, both in Ayau MPA - Training on Scientific Diving in Kei - Two trainings on Sustainable Fisheries at Ayau and Mayalibit Bay MPAs - Three trainings on sustainable tourism at Ayau, Dampier Strait and Kawe MPAs - Two MPA SK3 trainings in Jembrana - Bali & Manokwari – BHS - Two trainings on Sustainable Tourism in Raja Ampat - One MPA 101 training in BHS
Total	16	22	10	18	6	19	MPAG received more requests for training than had been

							anticipated, an indication of the popularity of these trainings.
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PERFORMANCE INDICATOR REFERENCE SHEET SUSTAINABLE FINANCING							
Indicator 2.3	A Trust Fund for MPA sustainable financing mechanism developed						
Definition	<p>A Sustainable Financing Working Group (SFWG) has been established led by the director of KKJI. SFWG, a multi-stakeholder forum consisting of four ministries and several NGOs, aims to establish a Trust Fund for MPA management, which will be incorporated into government financial management systems. This Trust Fund will be financed via donor support, operate as a government working unit (<i>satuan kerja</i>- the lowest government budget unit), and be coordinated by a Trust Fund Board.</p> <p>MPAG will support the establishment of organizational systems and procedures, including standard operating procedures for the Trust Fund Board, grant management, financial management, human resources, administration, and fund raising. MPAG will also support a Cooperation Agreement (PKS) between BP MIGAS and Ministry of Marine Affairs and Fisheries for managing MPAs.</p>						
Unit of measure	SOP and report						
Baseline Information	Establishment of SFWG						
Disaggregated by	N/A						
Data verification	SOP on institution design and work mechanism, background paper on a Trust Fund, PKS between BP MIGAS and Ministry of Marine Affairs and Fisheries						
Frequency and schedule of data collection	Annual updates						
Lead	WWF						
	YEAR 1		YEAR 2		YEAR 3		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
# of SOPs	2	2					SOPs developed are: institutional design and work mechanisms.
# of background papers on a Trust Fund	1	1					Background paper on the establishment of a Trust Fund has been completed.
# of PKS between BP MIGAS and Ministry of Marine Affairs and Fisheries for managing MPA							This indicator was cancelled due to BP MIGAS dismissal.
Total	3	3					

PERFORMANCE INDICATOR REFERENCE SHEET MANAGEMENT DECISION SUPPORT							
Indicator 2.4	DSS developed with scientific input and used by decision makers/stakeholders						
Definition	<p>The DSS will enhance data access for policy makers and stakeholders to support decision-making processes. All activities, data, studies, lesson learned, and publications related to marine conservation in Indonesia will be stored in KKJI database. Publication of these data may be arranged upon agreement.</p> <p>A standardized process for documenting and disseminating procedures will be developed, including procedures for uploading information to KKJI's website. Capacity building for KKJI staff to manage the database and website will be provided. In coordination with KKJI, graduate students will carry out studies related to impact of MPA management to support fisheries and tourism. Preliminary research will be conducted on request from the National Commission on Marine Resources (<i>Komnas SDP</i>), especially related to co-management and integration of MPA and fisheries. This research will be integrated into the DSS.</p> <p>MPAG will also support the development of a learning and information center on EAFM that will be hosted and managed by the Directorate of Fish Resources (SDI). This activity is to enhance awareness of key stakeholders about EAFM.</p>						
Unit of measure	SOP, website, and report						
Baseline Information	A joint roadmap for development of DSS						
Disaggregated by	N/A						
Data verification	SOP on data management and website, data set documents (management plans, zoning plans, conservation data, and other scientific input), and website visitors						
Frequency and schedule of data collection	Quarterly updates						
Lead	TNC, CI						
	YEAR 1		YEAR 2		YEAR 3		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
# of SOPs developed	2	10					Ten SOPs have been developed divided into two categories: (i) SOPs on data management and operation of website; and (ii) SOPs on website management and user administration.
# of data sets (scientific input) entered into the system	10	22	10	320	5	29	The number in actual Year 3 only for new data inputted between Oct-Dec 2013. In total, the data sets consist of 429 articles related to conservation and conservation regulations, and five GIS layers.

# of website visitors	500	179,559	2,000	687,300	20,000	1,485,627	This number of visitors was valid as of December 31, 2014. MPAG and MMAF recognized the importance of an online website and library but underestimated the popularity of the site.
# of learning and information centers on EAFM	1						EAFM website has been developed (eafm-indonesia.net) and integrated into SDI-Ministry of Marine Affairs and Fisheries website. EAFM learning and information centers are currently being developed in UNMUL, UNHAS, UNHALU, UNRAM, UKAW and STPL-Palu
NOTES							MPAG and MMAF recognized the importance of an online website and library but underestimated the popularity of the site. MPAG's secondment of a website expert to MMAF to help manage the site resulted in more documents being uploaded and more visitors to the site than what had been anticipated.

PERFORMANCE INDICATOR REFERENCE SHEET BIRD'S HEAD SEASCAPE (BHS) MPA NETWORK							
Indicator 2.5	MPA Network management effectiveness strengthened						
Definition	The development of MPA Networks within the BHS is intended to maximize positive impacts on ecology and biodiversity, while also maximizing benefits and minimizing costs to local communities. The BHS MPA Network was designed to accommodate ecological connectivity, climate change resilience, sustainable fisheries and tourism. Activities in BHS MPA Network will focus only on Raja Ampat, and will be particularly related to capacity building, technical support of the local government (<i>Unit Pelaksana Teknis Daerah</i> , UPTD), and alignment of BHS MPA Network with RZWP3K of Raja Ampat District.						
Unit of measure	Memorandum of Understanding (MOU) and report						
Baseline Information	Draft management plan of BHS MPA Network						
Disaggregated by	N/A						
Data verification	Lesson learned documents, technical support to UPTD, progress report on working group of RZWP3K Raja Ampat, MPA training report, MOU between BPSDM, the National Oceanic and Atmospheric Administration (NOAA), the University of Papua (UNIPA), and CI on capacity development						
Frequency and schedule of data collection	Annual updates						
Lead	CI						
	YEAR 1		YEAR 2		YEAR 3		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
# of lesson learned documents produced on MPA Network development	1	1					Lessons learned on MPA Network development documented.
# of technical support trainings on operation of UPTD Raja Ampat	1	1	1	2		2	Training needs assessment, trainings on leadership, and financial mentoring conducted for the Raja Ampat UPTD. Supported 2 trainings on operations for Raja Ampat UPTD.
# of progress reports on development of RZWP3K Raja Ampat	1	1	1	1			
# of MPA trainings delivered	1	5	1	1	1	10	- Basic MPA - MPA Management Planning - Sustainable Fisheries

							<ul style="list-style-type: none"> - Two trainings on Sustainable Tourism at Ayau Island - Two trainings on Sustainable Fisheries at Ayau and Mayalibit Bay MPAs - Three trainings on sustainable tourism at Ayau, Dampier Strait and Kawe MPAs - Two MPA SK3 trainings in Jembrana - Bali & Manokwari – BHS - Two trainings on Sustainable tourism in Raja Ampat - One MPA 101 training in BHS
# of MOUs between BPSDM, NOAA, UNIPA, and CI on capacity development	1	0					The MOU was redirected to Raja Ampat's <i>Badan Diklat Daerah</i> (District Training Center) since UNIPA is focused on research.
# of Government decrees on the MPA Management Structure						4	The Bupati Decrees related to BLUD-UPTD are issued.
#of management plans endorsed						1	West Kei Kecil Management plan is completed
Total	5	8	3	4	1	17	

PERFORMANCE INDICATOR REFERENCE SHEET							
BALI MPA NETWORK							
Indicator 2.6	MPA Network management effectiveness strengthened						
Definition	Several marine conservation initiatives, some with existing MPAs, are scattered around the island of Bali, including Bali Barat National Park, Nusa Penida, Les Village, Pemuteran Village, Lovina "dolphin watching" area, Tulamben-Amed and Peruncak "turtle beach" conservation village. These conservation areas, which are geographically close to each other, cannot be managed separately without an understanding of connectivity between them. To effectively manage these conservation areas, the concept of a MPA Network has been introduced that fully aligns with provincial spatial planning and implements the policy of <i>"one island, one plan, one management"</i> . A blueprint for the Bali MPA Network will be developed by a working group and approved by coastal districts and Bali Barat Marine National Park (MoF). MPA training for working group members will be conducted.						
Unit of measure	Agreement and report						
Baseline Information	Marine Rapid Assessment Program (MRAP) report						
Disaggregated by	N/A						
Data verification	Blueprint of Bali MPA Network, agreement on Bali MPA Network blueprint, communications materials, MPA training reports						
Frequency and schedule of data collection	Quarterly updates						
Lead	CI						
	YEAR 1		YEAR 2		YEAR 3		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
# of Bali MPA Network concept notes (blueprints) written	1	1					The Blue Print finalized in Year 3
# of Government Decrees on MPA Establishment	1	2					MPA Decrees for Buleleng and Jembrana issued in Year 3
# of MPA-related trainings delivered	1	2	1	3	1	5	2 MPA 101 trainings, 1 PRA training, 1 ToT training, 1 MPA surveillance and resources use monitoring training.
Total	3	5	1	3	1	5	

PERFORMANCE INDICATOR REFERENCE SHEET SAVU SEA MARINE NATIONAL PARK (MNP)								
Indicator 2.7	MPA management effectiveness strengthened							
Definition	<p>Draft MPA Management Effectiveness protocols (E-MPA), developed by KKJI and MPAG, will be used to measure the level of management effectiveness of Savu Sea MNP. Levels of management effectiveness are Red (MPA initiated – lowest level), Yellow (MPA established), Green (MPA managed minimally), Blue (MPA managed optimally), and Gold (MPA managed independently – highest level). Important indicators at various levels include: decree on proposed MPA, management unit, management plan, zoning plan, decree on enactment of MPA, management of MPA resources (social, economic, cultural), and sustainable financing.</p> <p>The 3.5 million hectare Savu Sea MNP was declared on May 13, 2009 during the World Ocean Conference in Manado with Ministerial Decree No. KEP.38/MEN/2009. Covering 11 districts in the East Nusa Tenggara Province, the Savu Sea MNP is currently one of the largest MPAs under development in the Coral Triangle. A draft management and zoning plan for the Savu Sea MNP will be finalized through a series of public consultations and then submitted to Ministry of Marine Affairs and Fisheries for approval. Local universities and NGOs will be engaged to strengthen their role in managing the Savu Sea MNP. MPAG will support operation of the P4KKP team (Assessment, Determination and Design Management of Marine Conservation Area Team), including development of monitoring and patrol protocols, outreach activities, delivering MPA related training, and promoting the Savu Sea MNP. A Ministry Decree on enactment of the Savu Sea MNP will be proposed.</p>							
Unit of measure	Management Effectiveness Level, decree(s), SOP, and reports							
Baseline Information	Ecological survey reports, draft management plan, Ministry Decree on Outline Savu Sea MNP, study on collaborative management							
Disaggregated by	N/A							
Data verification	Report on implementation of MPA Management Effectiveness tool (E-MPA) at Savu Sea MNP, Ministerial Decree on enactment of Savu Sea MNP, management plan and zoning plan document, meeting notes from public consultations, protocols on patrol and monitoring, MPA-related training reports							
Frequency and schedule of data collection	Quarterly updates							
Lead	TNC							
		YEAR 1		YEAR 2		YEAR 3		REMARKS
		Target	Actual	Target	Actual	Target	Actual	

Level of MPA Management Effectiveness, based on E-MPA	Yellow	Red 100% + yellow 81%	Yellow		Green (50%)	Green (52%)	E-KKP3K score 100% Red, 100% Yellow, 52% Green, 40% Blue.
# of Ministerial Decrees to enact Savu Sea MNP					1	1	Ministerial Decree for Savu Sea Marine National Park was issued on January 27, 2014. Completed KepMen KP No. 5/KEPMEN-KP/2014
# of management and zoning plans completed and approved			1	1			Savu Sea Marine National Park management and zoning plans completed in Year 3
# of meeting notes from public consultations	35	71					A total of 71 public consultations on draft management and zoning plans at various levels (district, sub-district and villages) have been implemented, reaching around 850 various stakeholders.
# of management protocols/SOPs developed	2	1	2	2			Protocol/SOPs on ground-truthing and sea grass monitoring completed in Year 1 while SOPs on resource use, reef health were completed in year 2 and 3
# of MPA-related trainings delivered	2	1	1	2			MPA related trainings delivered: ground-truthing, mapping, operating GPS, ToT for MPA, and ToT for stranded cetaceans.
Total	39	73	4	5	1	1	

PERFORMANCE INDICATOR REFERENCE SHEET NUSA PENIDA MPA (LOCAL MARINE RECREATIONAL PARK)							
Indicator 2.8	MPA management effectiveness strengthened						
Definition	<p>Draft MPA Management Effectiveness protocols (E-MPA), developed by KKJI and MPAG, will be used to measure the level of management effectiveness of Nusa Penida MPA. Levels of management effectiveness are Red (MPA initiated – lowest level), Yellow (MPA established), Green (MPA managed minimally), Blue (MPA managed optimally), and Gold (MPA managed independently – highest level). Important indicators at various levels include: decree on proposed MPA, management unit, management plan, zoning plan, decree on enactment of MPA, management of MPA resources (social, economic, cultural), and sustainable financing.</p> <p>Nusa Penida MPA (20,057 ha) was established under Head of Klungkung District Decree No.12/2011 in November 2010. The Nusa Penida MPA was launched by the Minister of Marine Affair and Fisheries together with the Head of Klungkung District, the Governor of Bali and the US Ambassador for Indonesia. A draft management and zoning plan for Nusa Penida MPA will be finalized and approved by Bupati, and a management unit will be established through Bupati Decree. Outreach materials will be produced and distributed to stakeholders and a sustainable financing concept will be developed. A Ministerial Decree on the enactment of Nusa Penida will be proposed.</p>						
Unit of measure	Management Effectiveness level, decree(s), SOP, and reports						
Baseline Information	Bupati Decree on proposed Nusa Penida MPA, draft management plan and zoning plan, draft Bupati Decree on Establishment of Management Unit, monitoring data, communications strategy, tourism code of conduct						
Disaggregated by	N/A						
Data verification	Report on implementation of MPA Management Effectiveness tool (E-MPA) at Nusa Penida MPA, Ministerial Decrees on enactment of Nusa Penida MPA, Bupati Decree on Management Unit, management plan and zoning plan documents, sustainable financing concept, ecological and socioeconomic survey reports						
Frequency and schedule of data collection	Quarterly updates						
Lead	CTC						
	Year 1		Year 2		Year 3		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
Level of MPA Management Effectiveness based on E-MPA	Yellow	Red 100% +	Yellow		Green (50%)	Green (95%)	The Score is: 100% Red, 100% Yellow, 95% Green, 45% Blue

		Yellow 54%					
# of Ministerial Decrees to enact Nusa Penida MPA					1	1	Ministerial Decree
# of Bupati Decrees on management unit	1	1					Klungkung Bupati Decree No. 30/2012 on management unit of Nusa Penida MPA.
# of management and zoning plans completed and approved			1	1			Klungkung Bupati Decree No. 137/2013 on legalization of management and zoning plans.
# of management protocols/SOPs developed			2	2	2	2	Three Protocols/SOPs completed: reef health monitoring, resource use monitoring, and joint patrol, and 1 code of conduct finished
# of sustainable financing mechanism concepts			1	1			Concept of sustainable financing mechanism finalized together with business plan.
# of ecological and socioeconomic surveys implemented	1	1	1	1	1	1	Ecological (reef health) and socio-economic (resource use) survey implemented based on protocols of reef health monitoring and resource use monitoring.
Total	2	2	5	5	4	4	

PERFORMANCE INDICATOR REFERENCE SHEET								
WEST KEI KECIL								
Indicator 2.9	MPA management effectiveness strengthened							
Definition	<p>Draft MPA Management Effectiveness protocols (E-MPA), developed by KKJI and MPAG, will be used to measure the level of management effectiveness of West Kei Kecil. Levels of management effectiveness are Red (MPA initiated – lowest level), Yellow (MPA established), Green (MPA managed minimally), Blue (MPA managed optimally), and Gold (MPA managed independently – highest level). Important indicators at various levels include: decree on proposed MPA, management unit, management plan, zoning plan, decree on enactment of MPA, management of MPA resources (social, economic, cultural), and sustainable financing.</p> <p>West Kei Kecil is a proposed MPA located at the eastern edge of the Banda Sea Eco-Region. The area is recognized as a globally significant foraging ground for endangered leatherback turtles, which are hunted there by local fishers. The marine ecosystem surrounding the Kei islands is also important for five other species of marine turtles (green, hawksbill, olive ridley, loggerhead, and flatback) and is a key migratory pathway for several species of whale. The West Kei Kecil MPA (about 150,000 ha) will be proposed formally through Bupati Decree and subsequently recommended for enactment to Ministry of Marine Affairs and Fisheries. Ecological and socioeconomic surveys will be conducted to inform the development of management and zoning plans. In the meantime, outreach activities will be implemented, especially by supporting the <i>Tabob</i> Cultural Festival.</p>							
Unit of measure	Management Effectiveness level, decree(s), SOP, and reports							
Baseline Information	Biophysical survey, public consultations, draft management and zoning plans							
Disaggregated by	N/A							
Data verification	Report on implementation of MPA Management Effectiveness tool (E-MPA) at West Kei Kecil MPA, Bupati Decree on proposed MPA and management unit, Ministerial Decree on enactment of West Kei Kecil MPA, management and zoning plan document, ecological and socioeconomic survey report							
Frequency and schedule of data collection	Quarterly updates							
Lead	WWF							
		YEAR 1		YEAR 2		YEAR 3		REMARKS
		Target	Actual	Target	Actual	Target	Actual	

Level of MPA Management Effectiveness based on E-MPA	Red	Red	Red		Yellow (50%)	Red (100%)	The E-KKP3K Score, 100% Red
# of Bupati Decrees	1	1	1				Southeast Maluku Bupati Decree No. 162 of 2012 on Designated Southeast Maluku MPA. Signed on May 4, 2012.
# of Ministerial Decrees to enact West Kei Kecil MPA					1		
# of management and zoning plans completed and approved			1 (completed)		1 (approved)		Draft zoning plan has been developed and activities to support development of management and zoning plans implemented: participatory mapping, study on local wisdom, SPAGs survey, academic paper, and turtle monitoring. Pattimura University has completed study on local wisdom.
# of management protocols/SOPs developed					2		
# of MPA-related trainings delivered	1	1	1	1			MPA related trainings delivered: MPA 101 for government officers and MPA 101 for communities.
Total	2	2	3	1	4		

PERFORMANCE INDICATOR REFERENCE SHEET	
BERAU MPA	
Indicator 2.10	MPA management effectiveness strengthened
Definition	Draft MPA Management Effectiveness protocols (E-MPA), developed by KKJI and MPAG, will be used to measure the level of management effectiveness of Berau MPA. Levels of management effectiveness are Red (MPA initiated – lowest level), Yellow (MPA established), Green (MPA managed minimally), Blue (MPA managed optimally), and Gold (MPA managed independently – highest level). Important indicators at various levels include: decree on proposed MPA, management unit, management plan, zoning plan, decree on enactment of MPA, management of MPA resources (social, economic, cultural), and sustainable financing. Berau MPA is Indonesia's first locally-established MPA and was created by the Berau District Government with direct support from USAID via the Coastal Resources Management Program (CRMP). In 2005 the Berau District Head issued a decree that established all marine waters of Berau as a multi-purpose MPA encompassing 1.27 million ha. However, the current process of marine spatial planning (RZWP3K) reduced the size of the Berau MPA from 1.27 million ha to 305,000 ha spread across six different locations. An initial Conservation Action Plan (CAP) for two conservation areas will be finalized; and ecological and socioeconomic surveys conducted to inform the development of management and zoning plans for these areas. In addition, capacity building for stakeholders will be implemented.
Unit of measure	Management Effectiveness level, decree(s), SOP, and reports
Baseline Information	REA report, draft RZWP3K, initial CAP, MPA 101 training
Disaggregated by	N/A
Data verification	Report on implementation of MPA Management Effectiveness tool (E-MPA) at Berau MPA, Ministerial Decree on enactment of Berau MPA, management plan and zoning plan documents, ecological and socioeconomic survey reports, capacity building report
Frequency and schedule of data collection	Quarterly updates
Lead	TNC

	YEAR 1		YEAR 2		YEAR 3		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
Level of MPA Management Effectiveness based on E-MPA	Yellow	Red	Yellow		Green (50%)	Green (24%)	E-KKP3K Score, Red 100%, Yellow 100%, Green 24%, and Blue 7%
# of Ministerial Decrees to enact Berau MPA					1	0	Bupati of Berau has issued a Decree for an MPA allocation and requested its establishment by Ministerial Decree.
# of management & zoning plans completed in two conservation areas			1	1			
# of management protocols/SOPs developed			1		1		
# of ecological & socioeconomic surveys implemented & disseminated in two conservation areas	1	1	1	1			Ecological and socio-economic profile completed including measurements of live hard coral measurements and community mapping exercises.
Total	1	1	3	2	2	0	

PERFORMANCE INDICATOR REFERENCE SHEET ANAMBAS NATIONAL MARINE RECREATIONAL PARK							
Indicator 2.11	MPA management effectiveness strengthened						
Definition	<p>Draft MPA Management Effectiveness protocols (E-MPA), developed by KKJI and MPAG, will be used to measure the level of management effectiveness of Anambas National Marine Recreational Park. Levels of management effectiveness are Red (MPA initiated – lowest level), Yellow (MPA established), Green (MPA managed minimally), Blue (MPA managed optimally), and Gold (MPA managed independently – highest level). Important indicators at various levels include: decree on proposed MPA, management unit, management plan, zoning plan, decree on enactment of MPA, management of MPA resources (social, economic, cultural), and sustainable financing.</p> <p>Anambas had been declared a National Marine Recreational Park via Ministerial Decree No. 35/MEN/2011 with a total area of 1,261,686 ha. This park is administratively located in Kepulauan Anambas District, Kepulauan Riau Province with 238 islands, 26 of which are inhabited. The three main islands in this archipelago are Siantan, Matak, and Jemaja. A Marine Rapid Assessment Program (MRAP) will be conducted to provide a basis for developing management and zoning plans. The process of proposing Anambas MRP for establishment via ministerial decree will be facilitated, and MPA trainings will be conducted. In addition, technical recommendations and inputs will be given to the tourism development plan and master plan of small islands. Private sector funded activities will be engaged based on management plan.</p>						
Unit of measure	Management Effectiveness level, decree(s), SOP, and reports						
Baseline Information	Ministry Decree on Anambas MRP outline						
Disaggregated by	N/A						
Data verification	Report on implementation of MPA Management Effectiveness tool (E-MPA) at Anambas Marine Recreational Park, Minister Decree on enactment of Anambas MRP, management plan and zoning document, MRAP report, MPA training report, technical recommendations						
Frequency and schedule of data collection	Quarterly updates						
Lead	CI						
	YEAR 1		YEAR 2		YEAR 3		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
Level of MPA management effectiveness based on E-MPA	Yellow	Red 100% + Yellow 83.3%	Green (25%)	Yellow	Green (50)	Green (62%)	In Year 3 it achieved Yellow 100 but only 62% Green. The score, 100% Red, 100% Yellow, 62% Green, 5% Blue
# of Ministerial Decrees on enactment of Anambas MRP					1	1	
# of management & zoning plans completed & approved			1 (completed)	1	1 (approved)	1	Management plan and zoning document is completed and approved
# of reports on Marine Rapid Assessment Program (MRAP)	1	1					MRAP report document is completed
# of MPA-related trainings delivered	1	3	1	3	1	4	4 Marine Ecotourism Guide Training and Dive Certificate in Siantan, Siantan Tengah, Siantan Timur and Palmatak
# of management protocols/SOPs developed			2		2	4	All protocols, Regular Surveillance, Patrol Posts, Fish Monitoring, and Turtle Conservation, finished in Year 3
Total	2	4	4	4	5	10	

PERFORMANCE INDICATOR REFERENCE SHEET								
WAKATOBI MARINE NATIONAL PARK								
Indicator 2.12		MPA management effectiveness strengthened						
Definition		<p>Draft MPA Management Effectiveness protocols (E-MPA), developed by KKJI and MPAG, will be used to measure the level of management effectiveness of Wakatobi MNP. Levels of management effectiveness are Red (MPA initiated – lowest level), Yellow (MPA established), Green (MPA managed minimally), Blue (MPA managed optimally), and Gold (MPA managed independently – highest level). Important indicators at various levels include: decree on proposed MPA, management unit, management plan, zoning plan, decree on enactment of MPA, management of MPA resources (social, economic, cultural), and sustainable financing.</p> <p>Wakatobi MNP is under the jurisdiction of the MoF. The district of Wakatobi is under the local government of Wakatobi. The 1.39 million ha Wakatobi MNP was established by the Government of Indonesia in 1996. In terms of diversity of marine life, scale, and reef condition, Wakatobi MNP ranks as one of the highest priorities for marine conservation in Indonesia. The allocation of stakeholder resources to support management has not yet been synchronized or coordinated. Stakeholders allocate resources independently, leading to duplication or gaps in management resourcing that need to be resolved. Collaborative management approaches in Wakatobi MNP have been hindered by the lack of enabling legislation. MPAG will work to establish co-management of the national park by engaging local government, communities, and private sectors in a variety of activities that influence biodiversity conservation, fisheries productivity, and local livelihood resiliency.</p>						
Unit of measure		Management Effectiveness level and reports						
Baseline Information		PP 60/2007 on Conservation of Fisheries Resources article 19 (1) related to partnership, RIPPDA						
Disaggregated by		N/A						
Data verification		Report on implementation of MPA Management Effectiveness tool (E-MPA) at Wakatobi MNP, concept of co-management document, meetings reports, input document on ecotourism business plan						
Frequency and schedule of data collection		Quarterly updates						
Lead		TNC-WWF						
		YEAR 1		YEAR 2		YEAR 3		REMARKS
		Target	Actual	Target	Actual	Target	Actual	

Level of MPA management effectiveness based on E-MPA	Blue (25%)	-	Blue (50%)	-	Blue (75%)	-	EKKP3K is developed for MPAs under Ministry of Marine Affairs and Fisheries and all criteria are based on MMAF's regulation regime, while Wakatobi Marine National Park is an MPA developed by the MoF that has a different scheme. Wakatobi National Park uses a Score Card as the basis for effective management measurement with the following results: Context (governance) 81%, Planning 79%, Input (programs) 57%, Process (activities) 48%, Output (results) 45%, and Outcomes (impacts) 63%.
# of co-management mechanism concepts developed	1	1					
# of stakeholder forum meetings on co-management held	2	1	2	3			Workshop on strengthening the role of the fisheries sector as a driver of economic development and to improve the management of Wakatobi Marine National Park. Key stakeholders participated in a series of dialogues in stakeholder forum meeting at district level. Currently stakeholder forum focused on Unesco-MaB (Man and Biosphere).
# of inputs on ecotourism business plan developed	1	1					Consultant is in the process of developing an ecotourism plan through a series of meetings with local community.
Total	4	3	2	3			

PERFORMANCE INDICATOR REFERENCE SHEET GILI MATRA NATIONAL MARINE RECREATIONAL PARK	
Indicator 2.13	MPA management effectiveness strengthened
Definition	<p>Draft MPA Management Effectiveness protocols (E-MPA), developed by KKJI and MPAG, will be used to measure the level of management effectiveness of Gili Matra National Marine Recreational Park. Levels of management effectiveness are Red (MPA initiated – lowest level), Yellow (MPA established), Green (MPA managed minimally), Blue (MPA managed optimally), and Gold (MPA managed independently – highest level). Important indicators at various levels include: decree on proposed MPA, management unit, management plan, zoning plan, decree on enactment of MPA, management of MPA resources (social, economic, cultural), and sustainable financing.</p> <p>In 1993, Gili Matra was designated as a recreation park under the MoF (Decree Number 85/Kpts-II/1993, dated 16 February 1993) based on the proposal of the Governor of West Nusa Tenggara Province. However, in 2009 management of Gili Matra was transferred to Ministry of Marine Affairs and Fisheries with MMAF's strategy outlined in Decree No.KEP.67/MEN/2009 on Gili Matra MRP. The Gili Matra area (approximately 2,954 ha) consists of three islands, GiliMeno (± 150 ha), Gili Air (± 175 ha), Gili Trawangan (± 340 ha), and $\pm 2,289$ ha of marine area. Gili Matra MRP management plan and zoning plan will be improved, and a co-management mechanism concept will be developed. To support adaptive management, ecological and socioeconomic surveys will be conducted and MPA trainings implemented.</p>
Unit of measure	Management Effectiveness level, SOP, and reports
Baseline Information	Draft of management and zoning plan
Disaggregated by	N/A
Data verification	Report on implementation of MPA Management Effectiveness tool (E-MPA) at Gili Matra National Marine Recreational Park, management plan and zoning plan document, ecological and socioeconomic survey report, MPA training report, co-management mechanism concept document
Frequency and schedule of data collection	Quarterly updates
Lead	WCS

	YEAR 1		YEAR 2		YEAR 3		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
Level of MPA Management Effectiveness based on E-MPA	Green (25%)	Yellow 100% + Green 71.4%	Green (50%)		Green (75%)	Green (86%)	E-KKP3K score, Red 100%, Yellow 100%, Green 86%, Blue 64%, Gold 17%
# of management and zoning plans completed and approved	1 (completed)	1	1 (approved)	1			The working group has finalized management and zoning plans through a series of public consultations at village and district levels. The working group was established by Head of BKKPN Kupang through Decree No.21.3.8/BKKPN/XI/2012 consisting of relevant stakeholders.
# of management protocols/SOPs developed			1	1	1	1	The two SOPs, stakeholder involvement and law enforcement, all finished in Year 2
# of ecological and socioeconomic surveys implemented and disseminated	1	1					Survey on ecological and socio-economic aspects was conducted in Year 1.
# of MPA-related trainings delivered	2	2	2	2	1	1	MPA related trainings delivered: ecological survey methods and MPA 101 training and certification
# of co-management mechanism concepts developed			1	1			North Lombok Bupati Decree No. 114/35.F/BAPPEDA/2013 on establishment of Gili Matra MRP Collaborative Management Coordinating Forum.
Total	4	4	5	5	2	2	

PERFORMANCE INDICATOR REFERENCE SHEET HOST COUNTRY SYSTEM							
Indicator 2.14	Host Country System (HCS)						
Definition	HCS is related to government financial management processes, which include budgeting, procurement, cash disbursement, reporting, monitoring and evaluation of budget absorption, and financial auditing in channeling foreign grants. Assessment of MMAF's financial management process will be conducted, followed by HCS design and training.						
Unit of measure	Report						
Baseline Information	N/A						
Disaggregated by	N/A						
Data verification	HCS assessment report, HCS design, HCS training reports						
Frequency and schedule of data collection	Annual updates						
Lead	HCS consultant						
	YEAR 1		YEAR 2		YEAR 3		REMARKS
	Target	Actual	Target	Actual	Target	Actual	
# of Indonesian HCS assessments	1	1					HCS Assessment report completed.
# of recommendations and HCS developed	1	1					HCS design completed.
# of trainings on design of HCS delivered	1	1					HCS training delivered.
Total	3	3					

ANNEX 1: MPAG Deliverables

Over the life of project, MPAG produced a wide variety of documents, some of which are only available in Bahasa Indonesia. Documents produced specifically for USAID include:

Annual Reports

MPAG Year 1 Annual Report, February - September 2012

MPAG Year 2 Annual Report, October 2012 - September 2013

MPAG Year 3 Annual Report, October 2013 – September 2014

Quarterly Reports

MPAG Year 1 Quarterly Report, February – March, 2012

MPAG Year 1 Quarterly Report, April – June 2012

MPAG Year 1 Quarterly Report, July – September 2012

MPAG Year 2 Quarterly Report October – December 2012

MPAG Year 2 Quarterly Report January – March 2013

MPAG Year 2 Quarterly Report April – June 2013

MPAG Year 2 Quarterly Report, July – September 2013

MPAG Year 3 Quarterly Report October – December 2013

MPAG Year 3 Quarterly Report January - March 2014

MPAG Year 3 Quarterly Report April - June 2014

MPAG Year 3 Quarterly Report July – September 2014

MPAG Year 3 Quarterly Report, October – December 2014

Work Plans

MPAG Year 1 Work Plan: May 2012

MPAG Year 2 Work Plan: December 2012

MPAG Year 3 Work Plan: November 2013

Other Project Documents

MPAG Performance Monitoring Plan: April 2012

Geographic Priorities of Marine Biodiversity for MPA Development in Indonesia 2012

News Briefs

MPAG Overview Brief

MPAG News vol 01

MPAG News vol 02

MPAG News vol 03

MPAG News vol 04

MPAG News vol 05

MPAG News vol 06

MPAG News vol 07

MPAG News vol 08

MPAG Brief Activities Location

MPAG Leaflets

Publications

Geographic Priorities for Marine Biodiversity Conservation in Indonesia

Host Country System

Study on Harmonization of Marine National Parks Management

Some 80 other publications including Fact Sheets, Background Papers, MPA Training Modules, Policy Briefs, Ministerial Decrees, guidebooks and Standard Operating Procedures and Protocols (SOPs), MPA related Master

theses/Doctoral dissertations, management and zoning plans from MPAs across Indonesia, EAFM (Ecosystem Approach for Fisheries Management) indicators and examples, and E-KKP3K (MPA Management Effectiveness Indicators) tools was also published by MPAG during the life of project. These documents were published in Bahasa Indonesia and can be found in their entirety online at the MMAF website at <http://www.kkji.kp3k.kkp.go.id/index.php/en/beritabar/233-koleksi-dokumen-mpag>

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